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A STUDY OF ANGER.

By G. STANLEY HALL.

Psychological literature contains no comprehensive memoir on this very important and interesting subject. Most text-books treat it either very briefly or not at all, or enumerate it with fear, love, etc., as one of the feelings, sentiments or emotions which are discussed collectively. Where it is especially studied, it is either in an abstract, speculative way, as in ethical works, or descriptively as in books on expression or anthropology or with reference to its place in some scheme or tabulation of the feelings, as in many of the older works on psychology or phrenology, or with special reference to some particular and partial theory as in the Lange-James discussions, or its expressions are treated in the way of literary characterizations as in novels, poetry, epics, etc., or finally its morbid and perhaps hospital forms are described in treatises on insanity. Observers of childhood, like Darwin, Taine, Preyer, Perez, Baldwin, Mrs. Moore, Miss Shinn, Sully and many others sometimes ignore it as too painful a trait to be fully described by fond parents or relatives, or briefly characterize single outbreaks, or special features in a single child. The outlook and the reactionary stages are sometimes confused, and there is nowhere any conception of the vast diversities of its phenomena in different individuals; so that we find not only great divergence but the most diametrical contradiction in describing its typical physical expressions. In some, *e. g.*, Stanley, it is *sui generis* and unique from the start; and for others, *e. g.*, Mantegazza, it shades by imperceptible gradations over into fear and love with few characteristics solely its own. Its physiological basis may be blood composition, digestive or hepatic changes in vascular contractions, abnormal secretions, non-removal of waste or toxic products, over lability of central nerve cells, reflex muscle tension, etc. At present the general subject of anger is a tumbling ground for abstract analysis and *a priori* speculation, which must be gradually cleared up if psychology is to advance from the study of the will to the feeling. Just now the chief obstacle to this advance is strangely enough the Lange-James theory, the general acceptance of which, puerile as it is in view of the vastness and complexity of the field, would do for this general tendency of psychology a dis-service comparable only with that which Descartes's catchy

dictum, that animals were mere automata, did for the advance of comparative psychology in his day.

I have collected the following, far from exhaustive list of English bearing on this state, additions to which in English or other languages also rich in such terms, are invited.

Acrimonious: sharp, pungent, biting.

Aggrieved: made heavy, severe, loded.

Affronted: confronted offensively.

Angry: root *ang*=straightened, troubled. *Angor*, strangling. Angere, to choke, stifle. *Arxio*=throttle. Awe and ugly have the same root, and ache is related, as are anxious and anguish. Other etymologies closely relate it to fear.

Animosity: hostile spirit, more vehement and less lasting than enmity.

Antagonistic: to a foe or adversary opponent.

Antipathy: instinctive and involuntary dislike, repugnance, distaste, disgust.

Aversion: turning from.

Bitter: biting, cutting, sharp, referring to the sense of taste.

Boiling: as a fluid from heat. Temper has a boiling point.

Breakout: restraint or inhibition giving way. *Cf. ausgelassen*, not peculiar to anger.

Brood: to incubate, nurse, keep warm.

Chagrin: mortify, keenly vex as at disappointment.

Chafe: as when the epidermis is worn off to the quick.

Choleric: from Latin and Greek, cholera=gall, bile. The liver was long regarded as the seat of anger and of love.

Contempt: scorn, despise, mépris.

Crabbed: scratch, claw, wayward in gait, not letting go.

Cross=curly, crimped, crooked. *Cf.* a "crook" in body or mind, cross-grained.

Cruel: morally crude, and from the same root, pitiless, loving to inflict suffering.

Crusty: brittle, short.

Curt: short and sharp.

Dander up: dandruff, scurf, ruffled temper.

Defiant: renouncing faith or allegiance, and challenging.

Demoniacal: possessed by an evil spirit.

Displeased: designating all degrees of being offended.

Enmity: inimical to an enemy.

Evil: exceeding limits, bad, depraved, vicious, not peculiar to anger.

Fierce often used for anger. *Ferus* (wild savage) cognate with *fera* (wild beast). *Cf.* wild with rage, savage resentment, mad as a hornet, angry as a bull, cross as a bear.

Fight: fighty.

Flare up: *Cf.* blaze out, inflame.

Fit: spasm, convulsion, spell, not peculiar to anger.

Fractious: fret, rebellious, warmly restive, easily broken.

Frantic: phrenetic, very excited, not peculiar to anger.

Frenzy: same root as frantic.

Fretty: abrasion, corrosion, chafing.

Fume: to smoke. *Cf.* thumos, spirit, anger.

Fury: storm of anger, possessed by the furies.

Gall: ref. to liver as seat of anger.

Glum: frown, stare, sullen.

Grim: stern, forbidding, severe, angry.

Gritty: sharp, grains of sand, pluck.

Grouty: turbid as liquor, dreggy, roily, surly.

Grudge: crumble, crush, ill will and envy.
 Gruff: rough.
 Grumpy: *Cf.* grim and many Teutonic words. Gram=to rage, roar, akin to sorrow, and related to grin, groan, grumble, make a noise.
 Haste: too quick wrath or temper.
 Hate: aversion, extreme detestation, repugnance.
 Hostile: with enmity, antagonistic.
 Hot: warm, heated.
 Huffy: puffed, swelled with rage.
 Impatient: the opposite of patience and long suffering.
 Indignant: at the unworthy or mean.
 Inflamed: a thermal analogy, combustible. *Cf.* flare up.
 Insane: unwell, anger is a brief insanity. *Cf.* mad.
 Ire: irascible, iracund.
 Irritable: excitable, chiefly applied to temper.
 Mad: a mad state, furious.
 Malevolent: willing or wishing evil.
 Malice: malus, bad, with ill will, malicious.
 Malignity: *Cf.* malign, producing malice.
 Morose: fretful.
 Mucky: like muck, nasty, of temper.
 Nasty: used of bad temper.
 Nettled: stung with nettles.
 Obstinate: standing against.
 Offended: struck against.
 Old Adam: aroused.
 Passionate: of any passion but prominently of anger.
 Peevish: feebly fretful, literally crying as a child.
 Pet: *Cf.* pettish, as a spoiled child or pet.
 Petulant: in a little pet.
 Piqued: pricked, stung, nettled, angered.
 Possessed: as if by a bad spirit.
 Provoked: called out, incited to anger.
 Put out: as of gear, off his nut, trolley, etc.
 Putchy: New England for touchy.
 Quarrelsome: prone to contend, also querulous.
 Rage: *Cf.* rabies: a furious degree of anger.
 Rancid: spoiled, tainted, rank, applied to butter.
 Rancor: *Cf.* rancid, something that rankles.
 Raving mad: as a horse, also roaring mad.
 Refractory: breaking away.
 Repugnance: contradiction, fighting against.
 Resent: to have strong feeling against or take offense.
 Retaliate: pay back in like.
 Revenge: requite, retribution.
 Riled: as mud stirred up in water.
 Ructious: (belching) is widely used in New England of angry states.
 Ruffled: hair or plumage tousled or stroked the wrong way.
 Savage: like beasts or barbaric men.
 Scorn: literally mockery, disdain, despise.
 Sharp: used of temper.
 Snarly: as of a dog.
 Snappish: short, crusty, tart, disposed to bite.
 Sore: literally aching, morbidly tender or irritable.
 Sour: acid, mordant, the sours.
 Spite: petty ill will.
 Spitfire: a hot tempered person.
 Splenetic: the spleen was supposed by the ancients to be the seat of anger.

Spunk: tinder, sponge.
 Stark mad: stiff, naked, strongly angry.
 Stormy: violent, gusty.
 Stern: austere, rigid, severe.
 Stubborn: stubbed, strongly obstinate.
 Sulk: refuse to act or respond.
 Sullen: glum and gloomy.
 Surly: doggedly rude, rough.
 Tantrum: literally=sudden impulse.
 Tart: acidulous.
 Tear: *Cf.* Zorn=rend, destroy, rip, burst, tearing mad.
 Tempestuous: *Cf.* stormy.
 Temper: disposition, hasty of temperament.
 Testy: snappish.
 Tew: used in New England for the fretting of infants.
 Touchy: like proud flesh.
 Ugly: literally horrid, unsightly.
 Up on his (or her) ear.
 Vengeance: *Cf.* vindictive, retribution, revenge.
 Vex: literally to shake, to badger, bother.
 Vicious: *Cf.* vitiated, addicted to vice.
 Vile: used of temper.
 Violent: infuriate, vehement, impetuous, turbulent.
 Volcanic: explosive, eruptive.
 Waspish: sting on too little or no provocation.
 Wild: untamed, undomesticated.
 Wode, wood: Wut=mad, furious, frantic, stirred up. *Cf.* woden wütendes Heer.
 Wrath=cognate with writhe, twist, turn to and fro, and with many words in other Teutonic languages with like meaning.

After a learned and valuable discussion, Chamberlain¹ sums up the etymological meanings of words for anger as designating (1) choking and strangling, Eng. *anger* and its cognates; (2) writhing and twisting, *wrath*; (3) crookedness, curling, *cross* and its cognates; (4) bursting and tearing, Ger. *zorn*; (5) hasty movements, *fury*, Gr. *ὀργος*; (6) seizing and grasping, *rage* and derivatives; (7) making a noise, *yelling*, Ger. *Grimm*, Tahitian *riri*; (8) malicious talk, slander, Ger. *böse*; (9) mental excitement, Lat. *vates*, Gr. *μῆνις*; (10) swelling, Gr. *ὄργη*, Samoan *huhu*; (11) based on the heart, Kootenay, *santilwine* and others; (12) on the liver, gall, bile, spleen, etc., and other words in various languages based on the stomach, nose, forehead, etc. Helpful as it is, this classification, as will be apparent from my list above, is not adequate. These words are interesting reflections of the ancient folks' conception of anger and are, as would be expected, nearly all physical.

Older medical writers, Gebhardus (1705), Slevoytius (1711), Fickius (1718), Clavillart (1744), Bender (1748), Regenhertz

¹ On Words for Anger in Certain Languages. A Study in Linguistic Psychology. *Am. Jour. of Psychology*, Jan. 1895, Vol. VI, No. 4, pp. 585-592.

(1757), Estrevenart (1788), Beeker (1811) and Regenbogen (1820), discussed the physiological effects of anger, urged its occasionally beneficial and even therapeutic effects. A group of French writers: Hiver (1815), Bemont (1816), Bigot (1818), Sallemund (1823), Boscher (1833), gave more or less elaborate descriptions of its phenomena and therapeutic treatment; and Baunus, Gallot, Husson, Ponte, Schneider and others have described cases of sudden death, loss of consciousness, convulsions caused by it, or have discussed its relations to drunkenness,

H. L. Manning¹ reports a case of rupture of a cerebral artery due to anger at an animal in a stable; compares brooding to a mental canker; thinks it may cause cancer and is liable to foreclose a mortgage of weakness in some organs at any time, urges that anger has the same sense as angina and that people whose temper is very sensitive are very selfish. Pointé² shows how violent anger may cause icterus, hernia, syncope, apoplexy, mania, hysterical attacks, mutism, etc. Many records of similar cures could be gathered from medical journals.

Forensic medicine, since Platner's important treatise on *ex-candescencia furibunda*, in 1800, has dealt with anger.³ Misers are inflamed by loss of gold, the proud by slights, lovers by petty offences by or against their mistresses. Morbid onsets of anger are manias of brief duration, and some forms of mania may be characterized as long-continued anger without objective cause. The impulse is irresistible and there is loss of psychic freedom. Again the provocation may be so strong as to break down all the inhibition that comes from restraining motives, and to cause the mind to be beclouded, or the outbreak may be too sudden for the slower, later acquired, and long circuiting apparatus of control to be set in operation, so that responsibility is lessened or indeed removed. Friedreich also thinks the storm of passion may temporarily obstruct the power of self-direction. Feuerbach says "Murder in a moment of passion is a crime possible for the noblest natures," and he goes on to describe conditions under which the act would not only be justifiable but noble. Rare as such cases are, he urges that crimes committed in sudden anger should have individual study.

The murder of her seducer, by Maria Barbellina (a case so well studied by Hrdlicka), committed in an automatic state not remembered afterwards, was essentially anger intensified to a full and typical epileptic attack.

Rush⁴ urges that the term gentleman implies a command of

¹ *Journal of Hygiene*, 1895, p. 324.

² *Gazette des Hôpitaux*, 1898, p. 273.

³ *Cf.* Friedreich: *Gerichtliche Anthropologie*, 1859, Ch. III, p. 20, *et seq.*

⁴ *The Mind*, pp. 331, *et seq.*

this passion above all others, cites Newton's mild words to his little dog, which set fire to the calculations of years: "thou little knowest the mischief thou hast done," mentions a clergyman who demonstrated a proposition of Euclid as a sedative, commends Thetys's mode of allaying the anger of her son Achilles by exciting the passion of love, advises a milk and vegetable diet and avoidance of all stimulants, even the moderate use of which predisposes to anger, advises drinking cold water, and in extreme cases a douche with it, and suggests that if due to weak morbid action wine or laudanum may help.

Savage races often work themselves up to a transport of rage for their battles by dances and yells, and rush upon the foe in blind fury. Sometimes the real fighting begins over the division of the booty with sickening sights of savage ferocity, more men being killed thus than in the original capture of the plunder, and blood feuds may augment the horror of it all.¹ The warrior's face is made up in the most fiendish way, his weapons suggest torture more than death, as do even his ornaments, and his scars are eloquent of the most desperate encounters.

Running amok², common among Malays and in other Oriental lands, has been variously described. An athletic man, who thus gives way to either revenge, religious frenzy, acute mental or bodily suffering, or to the various other causes assigned, often shaves off all the hair on his body, strips every vestige of clothing, oils or greases his body from head to foot, and armed with a dagger or knife runs at the top of his speed, stabbing every living creature he can get at. He runs straight ahead, rarely turning corners, never entering houses, and like an enraged human tiger never stops in his career of destruction, often with his head bent low like a battering ram, slippery as an eel, smeared and dripping with blood, till some one kills or at least stuns him. Formerly, poles with prongs were kept in every village to ward off or pin the Amokers who were far more frequent than now. The attack is not due to intoxication nor are the Malays subject to ordinary epilepsy, but it occurs when pain, grief, gloom, and loss of hope nursed by brooding, bring on what their language calls heart-sickness. When Job was tempted to curse God and die, or when we are goaded to desperation and break out from all the control of prudence and speak or act with abandon, reckless of consequences, wounding friends and foes, the Malay rushes, slashes right and left, plunges into the sea, etc. When medically examined they are

¹I. Thompson: *Through Masai Land*, p. 255.

²The Amok of the Malays, by W. Gilman Ellis, M. D. J. of M. Science, July, 1893.

in an excited state which lasts for hours or days, and sometimes with complete amnesia of the crisis. Its onset is very sudden and seems uncontrollable and paroxysmal.

In the Viking Age¹ each champion wanted to become a Berserker (fighter without a shirt). These bravest of men wrought themselves into such a frenzy at sight of their foe that they bit their shields and rushed forward, throwing away every weapon of defence. The berserk fury was utilized, not only for war but for performing hard feats beyond the power of common people. "In some cases this fury seems to have overcome the Berserks apparently without cause, when they trembled and gnashed their teeth." When they felt it coming on, they would wrestle with stones and trees, otherwise they would have slain their friends in their rage. In their greatest fury they were believed to take the outward shape of an animal of great strength and perversity. When great champions went berserking and were angry, they lost their human nature and went mad like dogs. They vowed to flee neither fire or iron, and in days of incessant warfare, died singing their brave deeds, and as they entered Valhalla could hear the lay of the scalds recounting their acts of prowess.² Sometimes in the acme of their rage, the mouth was open and frothing, and they howled like beasts and spared nothing in their course. Afterward they were weak, and calling their name often cured them.

At quarter races in some parts of the south, near the close of the last century, cock fights where the birds were armed with steel spurs with which they cut each other to pieces, wrestlings, quarrelings and often brutal fights occurred. In the latter, for which there were rules, "gouging" was always permissible. Each bully grew a long thumb nail for this purpose, and if he got his opponent down, would take out his eye unless he cried "King's curse." Sometimes ears were bitten off, and the yet more terrible mutilation of "Abelarding" might occur. These practices, McMaster³ tells us, long prevailed as far north as the Maryland border.

The Iliad is, as the world knows, the story of the results of the wrath and bitter verbal quarrel of Achilles with Agamemnon over the priest's captive daughter, Chryseis.

Orlando Furioso, in his long search for his pagan love, Angelica, coming suddenly upon conclusive evidence that she is false to him, becomes frantic, and seizing his arms, rushes to the forest with dreadful cries, breaking and cutting trees and

¹ Du Chaillu: *The Viking Age*, Chapter XXVI.

² Simrock: *Deutsche Mythologie*, p. 465.

³ *History of the People of the United States*, Vol. II, p. 5. I am indebted for this and several other references to the Librarian of Clark University, Mr. Louis N. Wilson.

rocks, destroying a grotto, and often thus terrorizing the country for days, passes raving mad through France and Spain, swims the Straits of Gibraltar and continues his devastations in Africa. For 300 verses Ariosto describes in vivid terms his desperate deeds of supernatural strength. Orlando is insanely mad and is restored only after the paladin and the apostle arrive at the magazine of good sense in the moon to find his soul securely bottled and labeled, which they return and force him to inhale, when he is restored.

Modern literature abounds in description of anger, *e. g.*, the breaking of the bull's neck by Ursus in the amphitheater to save the life of Lygia in *Quo Vadis*; the fights of Prasper and Galors in the *Forest Lovers*; Mulvaney's story in Kipling's *Soldier's Three*, where the conflict was body to body, too close to use bayonet, and the men could only push, kick, claw, maul, and breathe and swear in each other's faces, and knives danced like sunbeams, and cleft heads went down grinning in sections, revolvers spit like cats and black curses slid out of innocent mouths like morning dew from the rose. The brutal killing of Nancy by Bill Sykes; the fight with Squeers in *Nicholas Nickleby*; the conflicts in *Scott*; and from ancient mythology to the modern stage, all shows how all the world loves fighters. Dante, M. D. Conway and many other description of demons and hell abound in descriptions of anger. Volumes could be easily filled with such characterizations.

In Ireland's characterization of the insanity of power,¹ there are interesting descriptions of extreme and morbid anger. When angry, Claudius Cæsar is said to have grinned and foamed at the mouth. Agrippa's rage at a rival was so great that after one of them was executed, she had the head brought and opened its mouth. Commodus, by the sight of blood in the arena was aroused like a tiger on the first taste of it. He fought 735 times in gladiatorial games, took pleasure in bleeding people with a lancet, and the companions of his anger often fell victims to his rage. Mohammed Toghlaç had a passion for shedding blood, as if his object was to exterminate the human race. Executioners were always present to kill or torture on the instant those who offended him. His elephants were taught to throw his enemies into the air and catch them with their trunks, and to cut their bodies with knives fastened to their tusks. One who had provoked him was flayed alive, and then cooked with rice, and his wife and child forced to eat his flesh. Others were tied by the leg to wild horses, which ran through forests till only the leg was left. Ivan the terrible was filled with tigerish impulses by every suggestion of restraint. His jester

¹The Blot upon the Brain.

displeased him and he threw hot soup in his face at the table, and then rose and stabbed him. He forced people to kill their wives, fathers, mothers and children. Death did not appease his rage, and sometimes his enemies must sit at the table for days opposite the corpses of their nearest relatives, whom he had killed. He interrupted his devotions to massacre those who had provoked him. In one case some 27,000 inoffensive people were killed before his rage was placated. He killed his favorite son and heir in a fit of anger. Another son, who was killed young, had as a child a passion for seeing slaughter, and killed animals himself for the pleasure of seeing the blood flow.

Mantegazza assumes that man has far greater capacity for pain than for pleasure, and can hate more bitterly than he can love. Love and hate are not only often mixed and felt towards the same person, but may be different degrees of the same emotive force. Anger is an expression of egoism, and vanity and hyper-self feeling intensify it. Infants hate most and most often if their feeding is interfered with, boys if play, youth if love, adults if pride, old age if conservatism, women if their affections are disturbed. Duels in their early stages as courts of honor, and lawsuits and courts of arbitration are attempts to restrain this passion which makes *homo homini lupus*. Religions at their birth are efforts to placate the anger of deities and mitigate the fires of their wrath, for God is conceived as angry daily with the wicked, and hell is hot with his vengeance. A long list of curses, perhaps elaborately formed and ceremoniously launched, and damnatory oaths and obscenities, insulting names, especially of animals, imputing deformities of soul or body may be vents. Anger may emit its own peculiar smell; the first cry of the babe is perhaps anger, and anger may be directed toward self. In great haters the luxury of one moment of rage may be deliberately purchased by years of pain, and a city may be destroyed for a single man. Its strength is shown by the fact that while love is everywhere and always taught, and hate and anger everywhere repressed, the latter are yet so much stronger. It has all degrees from the most bestial fights for extermination up to irony, satire, criticism, coldness, neglect, teasing and many other forms. One can be angry without an object, but if we hate we must hate something. Pardon and its motivation are lightly touched upon, and placation of gods and men mark a higher stage, and the long strain of patience is a noble discipline for this *sæva animi tempestas*.¹

O. Schwartzer describes a form of morbid transitory rage as follows: "The patient predisposed to this, otherwise an entirely reasonable person, will be attacked suddenly without the

¹Physiologie des Hasses.

slightest outward provocation, and thrown into a paroxysm of the wildest rage with a fearful and blindly furious impulse to do violence and destroy. He flies at those about him, strikes, kicks, and throttles whomever he can catch, dashes at every object near him which he can lay his hands on, breaks and crushes what is near him, tears his clothes, shouts, howls, and roars, with eyes that flash and roll, and shows meanwhile all those symptoms of vaso-motor congestion which we have learned to know as the concomitants of anger. His face is red and swollen, his cheeks hot, his eyes protrude and the whites are bloodshot, the heart beats violently, the pulse marks 110-170 strokes a minute. The arteries of the neck are full and pulsating, the veins swollen, the saliva flows. The fit lasts only a few hours and ends suddenly with a sleep of from 8 to 12 hours, on awakening from which the patient has entirely forgotten what has happened."

Kraepelin¹ describes morbid irascibility *iracundia morbosa* in born imbeciles of higher grade whose moral nature is somewhat developed and who have considerable school knowledge. On the very slightest occasion, they go off as if loaded into an utterly uncontrollable frenzy of rage, tremble all over, stammer out insults and curses, inarticulate cries, bite their lips and hands, run and butt their heads against the wall, try to choke themselves, tear their clothing and destroy everything within reach, till they are breathless, reeking with sweat, hoarse, and too exhausted to move. Upon the stimulus, the explosion follows with the certainty of a machine. Often such cases maintain a certain orientation and avoid attacking persons, but vent their fury upon lifeless objects as in gestures. Such attacks may last an hour or days, sinking back with a long asymptotic curve of diminishing irritability to the normal. They often have no or slight memory afterward of what occurred, lament their infirmity, beg to be bound or shut up, have all objects with which they could do injury removed. Every even imaginary infraction of their hyperalgeric egotism and selfishness may provoke imperative actions perhaps of brutal passion.

Ziehen² describes the disposition to anger which is often associated with abnormal exaltation of self-feeling as hyperthyaim. In paralytic dementia primary exaltation is a very common intercurrent stadium and is a cardinal symptom of mania. In the characteristic cyclus, the depressive stage more commonly precedes. At the beginning and end of an anger fit the peripheral arteria are expanded, sometimes almost to the point of

¹ Psychiatrie, pp. 125 and 673.

² Psychiatrie, pp. 60 *et seq.*, 141 *et seq.*, 174, 242, etc.

congestion in the face; but at the acme of the explosion they are contracted and palor is most common. Respiration is prolonged and deep, the pulse wave low, the lapse of association is retarded, followed perhaps by an explosive acceleration, there is a decrease of motor-discharge, a stage of initial inhibition, succeeded by one of augmented intensity and perhaps restricted range. The play of motives is reduced, reflection drops out and sensation is applied directly to motives which are rather incoherent and unco-ordinated, and it is the shunting out of the association plexus that causes subsequent amnesia. *Furor epilepticus* is the most intense manifestation of anger. As a symptom of paralytic dementia excessive tearfulness is often associated with it, and may more or less take its place with increasing lability of mood and kind of action, and perhaps facial mimesis gestures and general agitation. Morbid irritability is not infrequent in chorea.

No one has described with such clearness and copiousness of casuistic material as Magnan¹ the slow accumulation of anger in paranoiacs, whom he agrees with Tardieu in calling the most dangerous of all the insane, who, on grounds of a purely hallucinatory nature, steal, insult, shout, without having given any one any intimation of the long evolution of their state of consciousness. Querulants complain of all, suspect all about them of changed feeling towards or of designs upon them. They imagine their friends look askance, are less constant in their feelings, are gossiping about them, or are fomenting plots to injure their business, reputation, etc. All is perhaps increased by auditory hallucinations and slowly the patient feels himself the victim of persecutions and surrounded by enemies with overt or covert designs upon him. Gradually reactionary impulses arise and gather force. The injuries must be resented, the guilty punished, and at length, the persecuted becomes a persecutor now entirely devoted to vengeance. Insults, denunciations, abusive letters, threatening, and perhaps written in red ink or in blood, slanders, murderous attacks and every other means are resorted to to gratify hate. No failure discourages, and then reason justifies all their acts as the inevitable retaliation to long accumulated and extreme provocation. He feels his case to be unprecedentedly and inexpressibly pathetic, one that cries to heaven for an avenger. For crimes thus motivated, when the patient has plainly lived completely into his morbid romance some authorities in forensic medicine recognize either partial or incomplete irresponsibility.

For the Herbartians, whose treatment of the feelings always must be very inadequate, anger burns outward from within,

¹ Paranoia, chronica, etc.

establishes a new apperception center, or *pointe de repère*, for a part of the mental content, shakes old concepts into wakefulness, and like a tide adds to one plexus of ideas what it takes from another, and has a long and slowly dying out, somatic after effect. Although perhaps at first "sweeter than honey," as Homer calls it, it belongs on the whole to the algescic and depressive group of emotions.¹

Stanley² characterizes anger as more offensive than defensive, as aggressive, expansive, as peculiarly developed in the carnivora who are usually solitary because predacious habits require a wide subsistence area. Its origin marked a most important and epoch-making era, as important for psychic morphology as the vertebrate form, giving those animals that acquired it a great advantage over those which did not, and it is a great factor in the evolution of personality. Those creatures who can injure all their enemies, and men who make their acquaintances fear to make them mad, are more likely to survive. The greater and more formidable the foe the more fear expels anger and prevents its ebullition. In a certain stage it is wise to bear in mind that any friend may become a foe. The weakness, which instead of hitting back turns the other cheek, is at a certain stage a disadvantage. Weak people cannot hate or be very angry. It is a unique passion, complete, and a genus by itself from the start, and so must be known introspectively or not at all; is pure at first and its hybrid forms evolve later. Its organs are claws, fangs, horns, spurs, and weapons, and it tends to culminate in eating the adversary, sometimes even in anthropophagy. Hate is habitual anger and is retrospective, while anger is prospective. It represents a wild state before and below civilization which has domesticated man. Even lower animals are very sensitive to it in men. While it smoulders and even when it breaks out the intellect may look coolly on. It cannot be undirected, but must always have an object.

For Ribot³ anger in the offensive form appears early (two months Preyer—ten months Darwin), and in its motor forms is the partial contraction of muscles, which are fully active in combat, involves fascination for the sight of and suffering, and in the depressed form passes over into hate and easily becomes morbid, and even epileptic and maniacal. Irresistible destructive impulses are disaggregated forms of anger, and show gradation separated from each other by imperceptible stages from pleasure in torturing and killing to satisfaction in reading of

¹ Volkmann: *Lehrbuch der Psychologie*, Vol. II, p. 390.

² *Evolutionary Psychology of Feeling*. Chapter X, p. 127.

³ *Psychology of Emotion*. Chapter III. Anger.

imaginary murders in novels, etc. All destructive impulses are at root one, and heredity and education, environment and circumstances develop them into determinate, habitual, and chronic directions. It may increase the ptomaines and cause auto-intoxication, and in the lower animal forms whose bite when angry is poisonous, and in human beings modifies the lacteal secretions of nursing mothers. It is best inhibited by fear, in some sense its opposite, and best seen in some carnivora.

Steinmetz¹ holds that revenge is a reaction to enhance lowered self-feeling, and primordially it is not directed against the aggressor, and Ree thinks it a reaction against the feeling of inferiority inflicted by another. At first there was no discrimination, and wrath might be wreaked upon any one, innocent or guilty. In a later stage, upon this theory, it is less indiscriminate, and some fitness is demanded in the victim, as in cases of blood feud. Last of all it was found that the wrong doer himself should bear the punishment. An Indian kicked out of a store kills a family of pigs; a relative at a funeral cuts himself "in a fit of revenge against fate" or kills some poor or defenceless person; the Navajoes, if jealous of their wives, kill the first person they meet; if one dies from an unknown cause, a victim is selected by lot, or the friends of the dead man kill the first person they meet, the bearer of bad news may suffer. All these facts and theories are combated by Westermarck² who urges many cases where carefully directed revenge is exercised by animals. From the very lowest forms anger is aimed at the cause of the pain. This weapon against injustice and injury resents aggression by counter aggression, and is thus a great aid in self-conservation and self-forgiveness. Even common tribal responsibility is a protection against the tendency of revenge to single out the guilty person. The forms and details of punishment are often elaborated.

After teaching this subject many years and with increasing dissatisfaction, I determined to try the questionnaire method and accordingly, in October, 1894, the first of an annual series of topical syllabi on Child Study, which have been continued now for four years, was published on anger and sent to nearly 900 teachers, parents and others in this country and elsewhere. It was as follows :

The phenomena wanted are variously designated by the following words: wrath, ire, temper, madness, indignation, sulks, sourness, putchiness, crossness, cholera, grudge, fume, fury, passion, to be or fall out with.

¹ *Ethnologische Studien zur ersten Entwicklung der Strafe.*

² *Mind*. N. S. VII, 1898, p. 289.

1. Add any other *terms* or any euphemisms, or phrases you know or can get from children indicating their feelings.
2. Describe every vaso-motor symptom, such as flushing, paling, about forehead, cheeks, nose, neck or elsewhere. Is there horripilation, chill, shudder, tremor, prickly feeling, numbness, choking, twitching, sweating, if so where and how long. Are there any accompanying sensations of color, flushes, taste, smell, noises, (question for each sense). Can blood pressure be tested?
3. Describe all changes of muscle-tension, scowling, grinding teeth, opening lips, setting of eye, clenching fists, position of arms and attitude of body. Is there nausea or a tendency to either contraction or relaxation of sphincter muscles which control anal or urinal passages.
4. Describe overt acts, striking (how, down, straight out, with fist or palm), scratching, biting, kicking. At what part are blows or attacks aimed.
5. What is the degree of *abandon* or loss of self control? Is it complete and is the rage entirely blind, or usually is some restraint shown in intensity of blows or some consideration in the place attacked?
6. Describe long delayed anger, the venting of secret grudges long nursed, and deliberately indulged.
7. Describe intensity curve of quick and slow children.
8. Describe reactions, afterwards physical, mental or moral, whether lassitude, contrition, and all verbal or acted signs of regret.
9. How do children speak of past outbreaks of anger in themselves, and of anger in others, and in general?
10. What treatment have you found good, and what palliatives do irascible children apply to themselves?

In description be photographically objective, exact, minute and copious in detail. Tell age, sex, family life, temperament, nationality of every child. Add to all a description of your experience with anger in yourself, and if possible get a few of your adult friends whether good or ill tempered, to write theirs, or organize a little circle of friends, mothers, teachers, neighbors, to talk over the subject and to observe in concert. Above all, get children of different age and temperament to talk confidentially, or better to write their own ideas in response to such questions as tell some things which make you angry; when do you get angry easiest? how do you feel and how act, how check it and how feel afterwards? write cases of others getting angry in detail, and state what you think about it generally.

This is a subject of obviously great importance for moral and even physical education, but there is almost no literature worth reading upon it. It is so vast that it can be best explored by concerted effort. The undersigned desires to investigate the subject and invites you to co-operation by sending him any notes, however incomplete, upon any aspect of the subject. Or, if preferred, you can start with these hints and work out your own data and print your conclusions.

Let us try the concerted method of work and in some way pool its results for the mutual benefit of teachers and for the good of the children we all live for.

In answer to the above questionnaire, a total of 2,184 returns have been received in season to be included in the following report. Miss Lillie A. Williams, of the Trenton (N. J.) Normal School, sent returns from 244 persons, of which 121 were original observations of children, 92 were reminiscences, 28 information received at second hand. Principal E. H. Russell,

of the Worcester (Mass.) Normal School, sent 109 returns; 35 of which were reminiscences, mostly by his pupils and teachers, and 63 were original observations on children. Mrs. Grace B. Sudborough sent 1,016 answers to the questions with opinions upon hyperthetical stories involving anger. From an anonymous source, 147 carefully written but brief essays upon personal experiences with anger were received. Miss Carlisle, of Norwich, Connecticut, sent 95 papers, partly studies by her normal class and partly answers by school children. From California, 65 papers were received; from an unknown source, 59 papers; from Miss Clapperton, of St. George's Training College, Edinburgh, 77; from Miss A. E. Wyckoff, of Brookline, 72 personal papers; from the Springfield Training School, 24 papers; from Dr. F. E. Spaulding, Superintendent J. A. Hancock, Miss Pedrick, Miss Flora J. White, a few papers each; and from Miss Hughes, then of the Cambridge (England) Ladies' College, 31 carefully prepared papers by students, with others from other sources. Besides this, a large list of literary references have been gradually accumulating during the past five years; the subject has been made several times a matter of discussion in my weekly seminary for the comparison of experiences; and I have several times worked over portions of the subject in the form of popular and class lectures. I am under special obligations to Principal M. H. Small, of Passaic, N. J., lately my student, for the compilation of a part of this material and the selection from the mass of material of some of the typical cases.

It need not be repeated, that, as I have already said, in compiling such material, too much caution cannot possibly be exercised. The returns are of all degrees of merit, from extremely good to worthless, and it requires great and constant critical acumen to sift the chaff from the wheat; and the value of the work depends chiefly upon how accurately and thoroughly this is done. The great advantages of this method are also obvious in the data upon this topic, for the range of individual differences is vast and the fecundity of human nature in so diversifying the expressions of this sentiment is perhaps nowhere more apparent and gives constant and often deep interest in reading over the returns. Concerning no subject have I felt more strongly the necessary limitations of individual experience and how absolutely necessary as the basis for any valid psychology of the subject, it is first of all to gather a vast array of facts and cases. This and the necessity of revising current theories upon anger will explain why I introduce so many condensed accounts of concrete cases. This tends to bring psychology back again into the closest contact with a large group of the most vital facts of life and to rescue it from the narrowing and

one-ended influences of theories from which that part of it which treats of the feelings and emotions and which now seems next in order for investigation, is now so gravely afflicted. The aspects of anger are very many sided and complex, but we see here the intensity and bitterness of the struggle for survival in the past by the traces that are left in modern life. So inadequate and partial are the text-book characterizations of it that it seems well to begin a closer look at this most intricate salient group of phenomena as particularly seen in self and others.

A. GENERAL.

1. Scotch, F., 20. When in a real passion a torrent seems to rush through me with terrific force, I tremble violently and feel quite faint. When the storm is not too deep for speech, I say the bitterest things that I can think of, though often aware that I shall repent them afterward. Yet I always want to be by myself, not to listen to reason, but to stamp, beat myself and think or say all sorts of wicked things. Above all I pity myself most intensely and end in a torrent of tears. A most aggravating fact, however, sometimes is that I cannot utter a word, no matter how eloquent I feel I ought to be. The storm within is too furious for speech, although it always ends with rain. The tears are a sign of exhaustion rather than repentance. The fits last a few moments, rarely half an hour, and to give them vent clears the air. By restraining it I feed on it and it lasts and rankles. If my anger is less violent I avoid speaking to the persons or ignore their existence, but my icy silence will melt despite my resolution. It kills love and admiration however.

2. M., 31. My capacity for anger is great and deepens into indignation, scorn and contempt. I can despise in a way impossible before. To think and to say inwardly that my antagonistic is a — fool vent-my feeling, sometimes I pity him and yet know I shall revert to feeling him a fine man. I am usually good natured, but can imagine causes of anger in those I love, but nothing less than their entire annihilation or that of the whole world, including myself, can satisfy. I believe I should have the courage, fatalism, criminality or whatever it be, to follow my impulse of the moment. My capacity for anger has increased with the breadth of my psychic life, but such periods are far rarer and it takes more to rouse it. Now I sometimes feel a sort of pleasure in bad treatment which was expected to enrage me.

3. English, F., 19. When angry I feel all of a sudden burning hot, stifled and compelled to make a noise. I used to strike people, now I strike things. I used to be promptly carried to my room, now I seek seclusion of my own accord. I used to shed tears, now I feel burning and choke till my nose bleeds, then I am better. Sometimes I grow icy cold and feel as if I was all blanc mange inside. This feeling is worse than the heat, for I seem to be a stone. People speak to me but I do not move; question me but I do not answer. They think I am sulky. I am not, but am simply frozen. I awake the next morning with a sense of shame; relief, however, predominates, then I can look at things in the right light and I go around apologizing and setting things right.

4. M., 30. When angry I feel as if my features were distorted, as if it were cowardly not to look the offender straight in the eye as pride impels, although another impulse inclines me to invert my eyes in an embarrassed way. I am conscious of my mouth and do not know

how to hold it, but this gesture makes me feel ashamed and restrained. I do not know how to hold my hands or to stand, but feel conscious of my whole body, want to be left alone, and when I am by myself I relax from this strain, then I seem to go all to pieces. I collapse, flop down all in a heap, suffer chiefly from mortified pride, feel that I could do almost anything rash, but from this state of utter abandon to later self control I get back in time. When angry I never can talk without crying.

5. Scotch, F., 22. I feel when irritable like a volcano liable to burst forth at any unconscious touch. I used to feel on fire inwardly. It is most painful and urges me to break or knock something down. A casual remark or even a most trivial happening increases it. I do not scold or rant but gather up all my force into a few cutting, cruel words. There is always a faint background of knowledge in the very height of the storm, that words remain forever and that the good Lord I profess to follow disapproves; but all these are beaten down and although I know that my words hurt both others and myself, I must utter them. From about 12 to 16 I would do almost anything to wreak vengeance, often striking people. I feel quite capable of killing a person. Even now I sometimes fear I shall do so, although as a rule my rage vents itself more and more inside. The humorous side of my anger often strikes me afterward, and then its sting is removed.

6. A girl of 10 became so angry because detained after school that she lost all control and gave up to a fit of passion. Her face became very pale, then flushed to a dark red, purple spots came and went on her cheeks and forehead, she writhed, twisted, screamed as though in bodily pain, and at times was almost bent double. At other times she would sit still a moment, gasp, shudder as if to choke, and then begin to scream again. She seemed to be sick to her stomach. She never showed any regret. She was once very angry at me and will always dislike me.

7. M., 44. When huffy or in a tantrum, a man I know has a vein in his forehead swell out large; a woman of 60 lengthens her upper lip; a woman of 25 pushes forward both lips; a college girl I know stiffens her under jaw, her eyes grow glassy, she raises her head, walks stiff and erect, talks in a jerky way which she calls sputtering. Hop-ping mad is a phrase literally correct for some.

8. M., 39. In some, I know, anger makes the face white, the features are set, then a chiselled look will appear beautiful in a way. Others pitch their voice low and speak more slowly and distinctly. The face of one child I know is completely changed. He looks wicked and like an animal. I have several times seen this, it haunts me and I hope I may never see it again. The cause in this case was unjust and ill judged punishment.

9. F., 21. I saw my little wiry music master, a man of 70, thoroughly angry once at my wrong and careless playing. He danced all around the room, stamped, shouted, stammered, and left the house unceremoniously. Some friends passed him around the corner rushing and muttering. At his next visit, mother asked him how I was getting on. He said I was doing splendidly and was his favorite pupil, and that he liked to have me give him trouble, because it showed that there was something in me.

10. F., 20. A sensitive, overworked middle aged music teacher, with keen artistic nature, when angered by laziness or conceit in his pupils, becomes extremely and frigidly polite,—by this, by his sarcasm and a slightly strained laugh, his indignation can be detected. Strong as his temper is, he has it under such control that a spectator would not suspect it.

11. M., 31. A most tempery women, I know, with a tremendous.

will, which if crossed makes her talk rapidly and recklessly. Her eyes flash and I have known her to kick people and strike them in the face. She seems like a dog run mad. If she really hurts people or they are quite upset, her rage instantly goes, and she is as tender as a mother, but afterwards she has a bilious headache. She often justifies her acts afterwards in cold blood.

12. M., 21. The best case I know is a woman, who overwhelms people with abuse, sometimes flies at them, becomes hysterical and then sulks for days. Once she resented her sister's language and destroyed every present she had ever received from her. She considers her temper a matter of course and seems to make no effort to check it.

13. F., 17. An ugly little Italian girl of 15, with beautiful hair like spun silk, of which she was inordinately vain, flew into a rage terrible to witness when it was towseled, which the girls took delight in doing. She said little but a terrible demon seemed to seize her and drive her into a passion. Every vestige of color left her face, her eyes glittered and her expression was almost inhumanly wicked and cruel. With one quick look at her tormentor, she would spring at her with feline alertness, and generally left distinct marks of nails and teeth. I never saw signs of regret. "It is to be hoped that her face was covered with blessed shame and that humanity suffused with cooling streams that fiery spirit."

14. F., 38. When angry my face grows pale, but dark about the mouth. I feel numb as if my circulation and physical functions had received a shock. The angrier I am the tighter grows the muscle tension everywhere. Every attack of anger is followed by constipation and urinal continence, also lack of appetite, thirst, nausea at the very sight of food, and also an acute bilious attack. Nausea once lasted six months because I had to sit at the table with the object of my anger; no monthly sickness in all that time. It is ten years since, but the sight of that person still brings on a feeling of anger. Of contrition I know nothing.

15. I saw a gypsy man and woman fighting, screaming, and using the most awful threats. They tried to bite, choke, seize each other in all tender parts of the body, and seemed not human but wild beasts.

16. F., 34. A South African girl, if told to do anything, instantly and ostentatiously disobeys, and calls a long string of names. She reminds me of Angelica in the Heavenly Twins; is honest, affectionate, generous, fond of mad pranks, is capable but hates work, and sits for hours doing nothing.

17. Am.; adult; female. "I do not remember getting violently angry but once. A friend of mine spoke unjust words of a neighbor of whom I was fond. I stood it for a few moments, then I commenced to talk. I could not say things sarcastic enough. There was a lump in my throat. My eyes felt as though they were open to their widest extent; my face was cold; breathing rapid; muscles contracted, and my hands were clenched. I scarcely heard anything. In an instant all this passed. The blood began to be pumped up through the arteries in the neck in powerful pulse-beats and my heart seemed to fairly jump. Gradually the muscles relaxed and a feeling of extreme fatigue came on. I could scarcely walk home I trembled so. When I was in my own room the tears flowed copiously. For a time I was almost afraid of myself. That night there seemed to be something pushing me on which I could not understand. I was very tired when this occurred."

18. F., 38. I teach a boy of fine American parentage who, when reprimanded, parts his lips slightly and looks me straight in the eye a little as though he were laughing at me. When I call him he comes, but sets his teeth, bends forward, clenches his fists, tries hard to speak but cannot utter a word till he cools down and then he stutters,

which he does at no other time, and at length the tears come. He is very bright, excels in study, likes and quotes me on all occasions. He is much worse at home and his mother fears he may become a murderer. He never shows regret.

19. F., 19. A girl friend has a peculiar sneering smile, which curls her lips, and no rebuke or threat can alter her. There is a peculiar contemptuous expression in her eyebrows. Her silence is dogged for days, it is as firm as a rampart against friends or foes. It ends in some burst of defiance and is usually roused by blame. Severity increases it. This disease the poor patient seems to inherit from her father.

20. M., 30. I know a young man of 24 in the West, who is well, strong and sane, whom I have seen repeatedly go to the corner of a ball-room and lie on the floor and pound his head on it and roll from anger, because another man danced with his best girl. He drives cattle and sometimes literally cuts a pig open with his great two-handed hog whip, or rides up to it on his broncho, seizes it by the hind legs and dashes its brains out on the ground. He is generally voted a good fellow, says little and never attacks human beings, but only writhes when angry.

21. F., 24. My former chum was a well-born girl, but without discipline and could never be crossed. If this occurred, she seemed at first astonished and then frozen up with rage. She stood once two hours without moving hands or feet, her head thrown back and a fixed determined look in her eyes.

22. Pure anger makes me creep from head to foot. I never want to have it out with any one or be revenged, but feel haunted and discordant for days. I must be alone, and have my door locked, with no possibility of intrusion, and often pile all the furniture against the door and then sit or lie down to have it out, or perhaps cry myself to sleep.

23. F., 21. When I had once lost control of myself, I wanted to push away everything that happened to be near, to make myself alone, where I could muse on my wrongs and grumble to my heart's content. Whoever happened to come near had to bear the brunt of my growls and hear everything and everybody described in the blackest of colors.

24. Eng., F., 21. In rage some people undergo an entire change, and their eyes grow large and set, the face is rigid, they contract the brows. Some vent it in violent motions, in quiverings of the body, compression of the lips, or bad words.

25. F., 19. I have seen men ordinarily sensible speak with cruel sarcasm and grow absolutely infantile, diffusing bitterness all about, and at the smallest provocation in a game of croquet.

26. A lady of 40 occasionally loses all control. She slaps, dances, says the most cutting things, for she is a woman of remarkable intelligence, but never shows any compunction.

27. My girl when angry is almost insane and acts like one possessed. She attacks anybody, breaks windows. Her second dentition seemed greatly to aggravate her temper.

28. F., 39. A girl of 11 when provoked throws down whatever she has and rushes at her enemy. She is hot, her teeth are clenched, and she usually goes for their hair, and when carried away, she stamps and cries boisterously.

29. M., 22. When maddest I used to sulk, make faces, stamp upstairs, my neck and ears would burn, my teeth grind, my fists clench, and although I felt contrition sometimes, could never show it.

30. M., 29. A girl of 17, humored and sentimentalized can bear no cross to her inordinate conceit. Her anger makes her eyes set and glassy, and she does outrageous things and ends always in sulks with no remorse.

31. Eng., F., 23. Some show temper by being bearish and boorish, others swell up and strut, will say or speak to any one, or give snappy answers. I think that rage makes red people white, dark people browner, and pale people pink. The better the complexion, the greater the change of color.

32. F., 36. I can recall but three violent experiences of anger. I felt pent up and congealed, then the worst of my nature came out. I got dizzy and my head felt very full. I seemed to tremble inwardly.

33. F., 25. Anger makes me hot, sticky and sweaty. I talk fast and loud. In extreme cases only do I completely lose all self control. It always ends in a shower of tears.

34. M., 18. When very mad I used to shut my eyes. There are some people I long to maul unmercifully, also cats, of which I have a most particular hate. The boy I am maddest at has separated me and my best girl, probably forever, and I am laying for him, if I have to hang for it.

35. F., 20. The slightest provocation in the way of getting worsted in games, or being forced to do hated things, made me scarlet and crimson. I still long to break out but something restrains me. I cannot bear to have any one speak to me in this state, and if they do am likely to burst forth in a torrent of tears. My reactions are usually penitence and fatigue.

36. A colored deaf mute, a boy of 15, slow mentally but well developed physically, resents everything, but most of all, allusions to his color. He shakes his fists, his eyes bulge, his upper lip is drawn from his eye teeth, he grows blacker, draws his fingers significantly across his throat, and his gestures and threats are terribly in earnest, but it all goes off in this way and he harms no one.

37. F., 21. There are no special causes or times that put me in a temper, and yet I sometimes have to walk up and down on tip toe or march back and forth in the garden or brace myself to sit still, feel every nerve and muscle stretched to its utmost tension. Sometimes when I am angry at people, I incline to do all the little nasty things I can think of to them, and the more angry I am the more lacerating things occur to me. Sometimes I cannot say these things, but fear that I may do them.

38. One bonnie merry Irish girl has spells of mood, during which she hardly speaks, but her moods are so separate that in one she rarely refers to the others.

39. F., 19. When alone I roll, wriggle and weep, but keep up a kind of philosophizing all the time as to how the object should be treated when we met.

40. F., 23. When my hot and furious temper culminates, I tremble, am cold, and speak out recklessly the first and bitterest things I know.

41. F., 19. A girl I know bursts into a flood of passion and must make a noise in almost any way, then she passes into the sulky state, and it takes a day or two for all to vanish.

42. M., 31. I know an impatient person who first fidgets, nostrils begin to twitch, eyes glare, voice is raised to a crescendo and after the acme there is a diminuendo, as the rage subsides. I know some whose chronic state of mind is sour and nothing is right.

43. Am.; adult; female. When I get very angry my face grows white, and it seems as though a cold hand clutches my heart. I grow faint and dizzy, and see green and black and red all whirling together. My breath grows short and my body gets limp. There is a distressing feeling of nausea. If a person ill treats me further, I rouse up and feed him sand, whereupon these symptoms disappear.

44. A boy of 14, the terror and leader among the inmates of a State reform school, when angry looks the person, officer, superintendent,

or whoever it may be, firmly in the eye, calls him the vilest names, is outrageously profane and attacks them like a mad man.

45. F., 23. If I could not have my own way when I was a child, I would scream and jump up and down. There was no control until I was about 8, when the form of my outbursts became tears and angry words. I had to do something when in a pet if only to rush about.

46. F., 26. My temper takes the form of taking things amiss and not being pleased at anything, am silent and gloomy, with a feeling as if my head was fixed in a vise. This symptom is a warning and the sensations are so painful that I make a desperate effort to keep pleasant.

47. My mother is a most warm hearted and affectionate woman, but when angry says very cruel things, which one does not like to think of. She has not been the same person since my little brother was born, and imagines injury where there is none, and broods over and nurses her wrath to keep it warm. My father too is hasty and like a great child in the way he takes offence, but he does not brood like mother. I have inherited his type.

48. F., 30. I have no feeling and no mercy, but will have my own way and prevent others from having theirs if I can.

A few typical individual outbreaks:

1. A big girl in a country school told me to get up and give her my seat near the fire, and when I refused she sat heavily in my lap. I could not push her off, and soon without willing to do so, found my teeth set pretty deep in her back. How often I have wondered if I did right. The question loomed up into big proportions and haunted me. I thought over and over again, "she was biggest, I had the seat first, what else could I have done," etc. I cannot tell how great this question grew or how it hung like a pall over my life for years.

2. F., 45. Once I was angry with God. It was too dreadful to recall; a sense of helplessness, the futility of reviling or opposing him, and this added to the horror. I was ill and could not hold my peace, but had to look up to the sky and blaspheme. My brother had a similar experience and told me that he felt as if the foot of a giant was on his neck. I told a clergyman, who called, to leave the house, that the Bible was a volume of lies, and God was the worst liar, for he had deceived me all my life. I have repented since and trust I am pardoned.

3. M., 40. Once I was said to have pushed down my brother, who was badly hurt, although in fact I was at the other end of the garden. I would not say I had not done it, and so was kept in bed two days. During this time I read Gulliver with delight, but a strong background feeling of injustice was always associated with this book. I am still angry at every thought of this, although usually I am quick over my tempers.

4. About my last rage was at the age of 13. I was in bed, and my sister was long in undressing, and then left the lamp in the farthest corner for me to put out. We quarreled fifteen minutes; then I put it out, but when I got back to bed, pinched her, when a fight ensued, which resulted in both of us sleeping very uncomfortably at the opposite and cold edges of the bed with a bolster between us.

5. F., 48. In youth I took refuge from the very few crosses of my very guarded life in pride. The first real anger was at the age of 42 at an act of injustice to my son, which stirred me fathoms below all previously known soundings in my nature. Each time that I permitted myself in the sanctity of friendship to discuss the matter, a singularly vile taste would arise in my mouth followed by extreme nausea.

That mighty maternal instinct of protection, which runs through all higher animal creatures, has since then been far more clear to me.

6. F., 41. My older brother teased me until I said I wished he was dead. As soon as I had said this dreadful thing, I was terrified lest a judgment from heaven should fall upon me by causing his death that day. I watched anxiously when he returned from his work and recall my remorse far more distinctly than I do the anger.

7. M., 24. I began a boyish fight which lasted nearly an hour without anger. It ended by my enemy falling and pretending to be dead. I believed he was and felt exultant and perfectly satisfied and happy. Left him lying at the fence corner and went home. Knew I must suffer at the hands of the law, but was fatalistically resigned.

8. F., 46. When I was ill and the doctor came to tell me of my brother's death; I struck him with all my might; and all that is usually grief seemed for the moment turned into anger.

9. F., 24. My last great rage was eight years ago at my brother who hurt my cat. I rushed at him, screamed, thumped him with both fists as hard as I could, then I ran out of the room, cried, felt ashamed, pretended to act as though nothing had happened, and for a long time felt hot and miserable, for my brother kept alluding to the wounds he said he had received.

10. F., 45. A slum boy lately struck me in the face with his fists. My face grew icy cold and all my muscles got tense. I felt my lips white and wanted to hurt him physically. I could have done it, although he was a large boy, and should have done it but for my dignity as a teacher. I wanted to put him on the floor and pound him.

11. M., 37. My present temper is of three sorts—first, actual passion; second, impatience or ire; third, sulks. Of the first I can recall but two instances. One was when my little brother would not stop teasing me to show him something when I was very tired. I broke out in words and was checked by the look in his face. I could have cried as I could at this moment in remembering it. When a friend urges me to do something I abominate, I have several times measured strength with him.

12. M., 23. Once when I was about 13, in an angry fit, I walked out of the house vowing I would never return. It was a beautiful summer day, and I walked far along lovely lanes, till gradually the stillness and beauty calmed and soothed me, and after some hours I returned repentant and almost melted. Since then when angry, I do this if I can, and find it the best cure.

13. F., 43. When about 4 my brother shot an arrow at my candlestick, this made me so mad I ran out of the house and hid under a hay stack, resolving to make him miserable by being lost, and determined to die from starvation.

14. F., 20. I offered a doll to my little niece and when she reached for it, I took it away and told her she could not have it. It worked like a charm, and when she was brought up to the proper pitch, I took the following notes—face very red and swollen, two deep wrinkles between the brows, lips firmly pressed together but later open to their full extent, when she began to scream at the top of her voice. She stamped, kicked, tried to slap me in the face and clenched her fist. Later but not at first the tears came and she sobbed as if her little heart would break. Next time I shall study her laugh which will be a pleasanter task.

I. CAUSES.

The following cases selected and abridged from many are typical and suggest that women have more provocations than

men, but usually practice control better, and how courtesy, respect, sympathy, consideration, kind and fair treatment of others and even of animals may remove many of the incitements to it.

1. F., 20. The painful feeling at the time and the self scorn afterward make angry experiences hard to recall. The chief causes are contradiction, especially if I am right; slights, especially to my parents or friends even more than myself; to have my veracity questioned; the sight of my older brother smoking when we are poor; injustice, dislike or hate from those who fear to speak right out; being tired and out of sorts, etc. In the latter mood the least thing like finding books out of place; loss of step when I am walking with some one; indignity to a poor girl by the teacher; stupidity in people who will not understand—these make me feel as a cat must when stroked the wrong way. Injustice is the worst and its effects last longest. To be distracted at my work; unpleasant manners and books; hunger and cold; to be treated as if I were of no account; flies that will keep lighting or buzzing around me; to stub the toe or have it stepped on; to forget things that I want to remember or to be unable to find things; when my bicycle hits a stone; to have lost a button or have my hair come down; to have a pin come out or my clothes rip; these things make me more petulant.

2. F., 26. People more than things or events arouse my temper and some have far greater power to do so than others. Their mere presence is so irritating that it requires a great effort of control and my aversion is often apparent to others. Life with such persons would be intolerable, and would bring out the worst side of my character. Special causes are narrow mindedness, cruelty to animals, slander, obstinacy in thought and deed, want of sympathy or sometimes a trifle unnoticeable by others, touches the sore spot, times of ill health, being forced to do over what I had done as well as I could before, times of low spirits which with me alternate with high. I pay too much attention to details without grasping the whole, and this makes trifles irritate me. I jump at conclusions and hence am often angry without cause.

3. F., 29. Whatever limits my freedom of action or thought is the strongest stimulus to wrath. I was royally mad at my sister because she did not resent an injury. I can deny myself as much as others can, but cannot endure to have others cross me. I was never madder than when my brother would make a noise, when our mother was ill. My causes are girls talking out loud and distracting me in study hours; to be accused of idleness when I have studied my hardest; blamed for what I did not do or did, or my health being below par. Sometimes when I am happy, I am more easily angered than when melancholy, because in the latter case everything looks gloomy, so that one point more or less makes no difference.

4. English, F., 22. I have a great variety of tempers, especially of the irritable, jealous, sulky violent kinds. The violent kind is caused by injustice to others or extreme flat contradiction, or when my favorite, deepest feelings and will are thwarted. The irritable type comes from smaller stimuli like being kept waiting, being hurried, having my skirt trodden on, density in others, etc. Health also affects it. Jealousy is caused by those I dearly love preferring others. Sulks are due to neglect or injustice or impertinent coldness. All these types except the irritable are more under control than in childhood.

5. F., 20. If accused of doing what I did not, and especially what I abhor, I am so angry that I tell my accuser that she would do the

same. If I am hurrying in the street and others saunter, so that I cannot get by, or a person I like makes fun of me, or when given a seat in church behind a large pillar, I am provoked, and the more helpless I feel the more ungovernable my temper becomes. Opposition enrages me, so does a discordant note in music, especially if repeated.

6. F., 23. My lines have fallen in such pleasant places, that I hardly know how anger feels; yet injustice does rouse ire which I call righteous. Sometimes I take up cudgels in behalf of imaginary sufferers and work myself into a state of passionate fury. In such mental inflammations, epithets and phrases suggest and form themselves with dreadful facility, and I express myself far more easily than at other times. Sarcasm and criticism are such a relief. If people are perfectly unjust, I can treat them indifferently, but if there is a spice of truth in what they say, I am much more angry.

7. M., 34. When despondent the worst thing is to have made up my mind to do something and failed. Being angry at myself, I am consequently so to all who speak to me. Frivolity in others, asking needless questions, attempting to cajole or boot-lick the teachers, rouse me; so does doing what I do not want to when I vent rage by doing it in a slovenly and discouraged way. Self gratification at another's expense, cruelty, being deceived or trapped, or when dignity, self respect or common courtesy are outraged.

8. M., 28. Am often angry with myself caused by my own faults, my jealousy of friends, so that I can rarely rejoice at another's success. This is bad and I fight but cannot overcome it. An over tidy relative always slicking up my things, the necessity for hard cramming for examination, interruptions, being laughed at is perhaps the worst of all. Being asked to give or do things when I am just ready to do so of my own notion, having my school work soiled.

9. M., 19. My causes are being beaten in an argument, when I know I am right, being misunderstood, being kept waiting, and worst of all being told I am stupid and ought to know better, especially if it is true, being accused of cheating at games, although it takes many such little aggravations to bring me to the boiling point.

10. F., 48. In my teens very divergent opinions or beliefs made me angry. I blush, throb, grow stiff, and have a peculiar whirling sensation in the head. If I differ in argument and cannot convince my opponent, or if he says what is false or strained to prove his case, or worst of all jealousy makes me short, sharp, crusty, and pale and savage in looks.

11. F., 22. The causes of my anger are if people act against reason or their better knowledge, or lack moral courage, pandering of all sorts, seeing nobodies patronized, slovenly work, want of system, method and organization, being expected to do things without the means or conditions, sudden emotions and meanness.

12. F., 25. My causes of anger are slowness in others, being kept waiting and expectant, or being slow myself when I want to be quick, when I am angry at myself. Another cause is if others are dense and wooden, if my curiosity is aroused and not satisfied. Perhaps it may all be resolved into my not having my own way.

13. M., 27. I am angry at late risers in my own house, stupidity, disappointment in some fond hope and feeling pushed and hurried. Any kind of reproof is most irritating. To sharply deny people what they want is the best means of arousing their temper.

14. F., 14. My temper is worst when I see a girl put on airs, strut around, talk big and fine. I scut my feet and want to hit her, if she is not too big. Jealousy at hearing others praised as I think unduly as paragons, or having my own nature dissected or discussed, is most irritating to me.

15. F., 22. Aggression toward the weak, stupidity, obstinacy, lying, deceit, and a sense of impurity. A person I neither love or hate would have a hard task to put me in a temper.

16. F., 36. One chief cause of anger and even fear in children would be removed if we did not begin their training with don't's. Sympathetic and positive indications, if wisely administered, cure me.

17. F., 46. When a playmate said her mother was better than mine, I tipped over the table in her house, rushed home, and was so confused that I fell down stairs, was more controlled afterwards.

18. F., 14. If I am made to stop reading a story in the most interesting part to wash dishes or mind the baby, I have to squeeze something very hard or make faces, and sometimes when very mad, I laugh.

19. F., 14. What makes me mad is if I have a bad headache or my brothers and sisters get to fighting, or all turn and plague me when mother is gone. Sometimes I hit and sometimes say a prayer to myself, and try not to mind it.

20. F. With me it is the worst and the commonest cause to feel that I have more to do than I can, to hear gossip about neighbors.

21. F., 29. When tired, I am irritable and fret at little things, and all my life have felt that I was not understood. This causes me to brood. If I am excited from having enjoyed myself very much, then I am easiest angered.

22. F., 31. To be crowded or jostled, told to do something by people who have no right, to see slovenly work, to be ridiculed, spied, tattled about, be detected in wrong doing, is my chief provocative.

23. F., 19. Harping, nagging, gloating over one's own or others' wrongs, rouses me and I give my friends the benefit of my thoughts with a great deal of volubility.

24. F., 29. Term time with regular work is better for temper than vacation when all sorts of things may turn up, and when there is not system, yet some are most irritable when working hardest.

25. F., 30. Tittle-tattle, petty talk and gossips, flat contradiction, interference with my rights or affairs, impertinence, constant interruptions, practical jokes, idiotic laughter or anything unjust.

26. M., 26. The most provoking things to me are real or fancied slights to those near me or myself, for I have great pride which is easily wounded.

27. M., 22. If indigestion, which is a form of irritability, is temper, then I often feel it. I am easiest angered in the morning, but later in the day can face difficulties with far more equanimity.

28. F., 35. My childish tempests of wrath burned hottest when my grandfather used to trim or cut down trees or even shrubs. I told him God made them that way, and he had no right to hurt or change them.

29. F., 20. Teasing I never minded, but rather enjoyed, but to snub or talk down to me in a top-lofty way arouses all my ire.

30. F., 31. If people I care for say unkind things, it hurts me so I seem to turn to stone, and it seems as if I can never love them more. This rankles. I can recognize one distinct type of my threefold temper, which comes from my mother.

31. F., 21. To have to do a great deal of unnecessary work, which my people invent to occupy my holidays, makes me maddest. I speak sharply, and I have reasons, for I am not a naughty girl, who needs to be kept out of mischief.

32. F., 44. When boys use vile language in my presence, I want to smack them across the mouth. Cruelty to objects incapable of resistance and injustice to children rile me intensely.

33. F., 39. Familiarity, which I have not evoked, discussion with those who have not even tried to understand my point of view, to hear

myself talked about or discussed, even by my parents, is insufferable.

34. I am more indignant at what people say than at what they do. When nasty things are said, I lose control of my tongue and must say what comes into my head at the time. I hardly know what I am saying, but it all comes back later.

Spontaneous Anger. I think we must admit that sometimes this really occurs, although it is a very interesting and uncertain question. Prison and other records show that people in confinement sometimes break out into fits of destructive rage with no apparent cause. Of course dislikes may deepen to antipathy and aversion, till not only every act whatever but the very presence of certain individuals may irritate to the point of explosion, and there may be a long summation of petty vexations, but it would seem that our organism is so made that this form of erethic inflammation may reach its fulminating stage without any cause assignable by the subject or observable by others. Sometimes purely imaginary wrongs to imaginary people excite intense moral indignation. If there are spontaneous cases, they cannot be entirely explained by love of this kind of erethic state as such, but may be due to the necessities of growth or over lability of nerve cells or centers. The satisfaction and real physical pleasure too that sometimes follow anger suggests that it has its place in normal development. Running amuck is sometimes described as spontaneous, like rabies. The determination of this question is like the problem whether crying and some movements of infants and animals are reflex or due to purely efferent causes, is at present insoluble nor is it crucial for the Lange-James theory. Platner, as we saw, thought some forms of mania were best characterized as prolonged anger without observable cause, and the Berserk rage it was thought was sometimes unmotivated. Michael Angelo is described as chipping down a block of marble to the rougher outlines in a veritable rage, and I lately read of a man and wife in court for fighting who agreed that they were peaceable and affectionate but had to have a bitter quarrel every few weeks over nothing to clear the air. Play and mock fights often contain a little repressed anger and are good to vent it harmlessly.

1. F., 23. When I was 17 I had a long spell of irritability, was unhappy, and it gave me pleasure and satisfaction to make sarcastic remarks. My weakness is impulsiveness, which makes me unfit for a responsible position. I try to lay good foundations of belief and get more settled feelings for my own determination.

2. M., 41. A girl up to 17 in good health had fits of anger with great regularity; about once a month she was violent and lost all self control. No small vengeance was her desire, but no less than a passionate desire to kill the offender. Hatred shown by looks and gestures was intense, and the fit might last a week.

3. F., 7, whose mother calls her every endearing name, while describing her way of sitting, eating, speaking, etc., suddenly passes

to a rigid state, and she once on recovering from this vented her spite by cutting off all the leaves of a century plant.

4. Girl of 3 was eating lunch, when suddenly, without discernible cause, she cried out, tipped over her milk, rose, threw herself face down upon the floor, screamed, kicked, beat the boards.

5. A boy of 14 was sitting in school dreamily gazing out of the window when suddenly his face clouded, and scowled, and he struck his fist on his slate and broke it. The loud noise and the teacher and the school brought him to himself. He could give no explanation except that he felt mad and must strike something.

6. M., 31. When a schoolboy I was a great fighter and if I had not had a battle for some weeks was literally spoiling for a fight. Once I went to the barn and pounded a poor cow chained in her stall for relief. Teasing and bullying used to relieve it. I sometimes pounded a rock behind the corn-house with a sledge hammer.

7. M., 25. Anger often helped me out in my work. In chopping wood, mowing, and other things requiring great effort, I could scarcely help gritting my teeth and getting mad with the object. I used often to find myself helped on by anger at sums, knotty translations, etc.

8. M., 37. (Once assistant physician in a lunatic asylum.) I knew an epileptic case where the patient, a colored man of perhaps 25, had fits that seemed to be nothing but spells of blind rage. He would attack every one, destroy everything and injure himself till he became unconscious. He felt the symptom beforehand and was put in a padded cell.

Personal Antipathies Based on Physical Forms and Features. While these dislikes sometimes are intense enough to generate anger, their chief effect is to raise the anger point, so that a far slighter stimulus is necessary to produce the explosion than in the case of those who instinctively attract each other. From very copious collections of questionnaire material for a very different purpose, it appears that children and young people are very prone to detect resemblances to animals in faces, and often see persons whose features suggest the monkey, dog, parrot, pig, cat, mule, sheep, rabbit, owl, fox, lion, etc., and therefore become objects of special aversion. In another series, prominent or deep set eyes, shortness of stature, cowlicks, ears that stand out, too prominent chin, brows that meet, large feet, high cheek bones, pug nose, Adam's apple, long nose, small chin, prominent, large, dirty or otherwise exceptional teeth, pimples, red hair, light eyes, thick lips, a stub thumb, bad breath, bleary eyes, freckles, fatness, leanness, birth marks, deformities, are features any one of which may evoke immediate antagonism and put the mind in a critical attitude, so that with reference to persons possessing these peculiarities irritability exists side by side with great good temper for those who are physically attractive. Girls in particular often single out some one peculiarity with respect to which they are especially sensitized, and in some cases are provoked to active hate in a way that suggests the converse of the fetishism common among sexual perverts. It is difficult often even for the subject to

analyze the cause of these repulsions and they are sometimes quite unconscious and instinctive.

F., 21. I am a great person to take likes and dislikes; and if the latter, can see no good points in the person. I often judge wrongly and sometimes can conquer my aversion, but it often recurs.

F., 22. My little brother is like me in taking unaccountable aversion to things and persons, especially the former, *e. g.*, a new suit. I have an insupportable aversion to share my room with certain people with whom I like to go around with well enough, so too I cannot see sick people without anger, unless I love them passionately.

F., 19. I believe some persons have elements about them that tend to always keep others bad and others in a temper. The more I like people, the more it takes to make me angry at them; and the better my health, the stronger must be the provocation. Examinations make me spiteful toward the very rooms where they are held, and here some of my worst scenes with Apollyon have occurred. Generally I can stand any amount of banter, but sometimes a little brings a storm on some luckless head.

Based on Peculiar Acts or Automatisms. In this list we have snuffing, lipping, making faces, swallowing, rolling the eyes, peculiarities of voice, accent, intonation, inflection, sighing, shrugging, the kind of smile or laugh, motions of the head and arms, gait in walking, posture and carriage, hiccough, stammering, and bad manners generally.

Dress and Ornament. Ear rings in men to 130 women out of 679, are objects of intense and very special abhorrence. Thumb rings, bangs, frizzes, short hair in women, hat on one side, baldness, too much style or jewelry, single eye glass, flashy ties, heavy watch chains, many rings, necklaces, and a long list in this class show how dominant unconscious forces are in mediating dislike, which in some souls needs little intensification to settle into permanent hate. Not a few young women state that they could never lead happy married lives with the possessors of these peculiarities, no matter how many good traits of body and mind atoned for them, and the presence of persons possessing them is described as a constant source of irritation, sufficient in itself to spoil the temper. Special aversions of this kind must, of course, be the results of considerable development due to frequent or continued exposure, and it is plain that in some cases the antipathy is created by association with other disagreeable qualities. It would be interesting to know, what our data do not show, whether these traits are conspicuously present or absent in those who detest them, for it might throw light upon the question whether similar or complimentary characteristics repel or attract.

Habits. Another class of instinctive aversions for which some minds develop sore, irritable spots, are certain habits like smoking, eating onions and garlic, untidiness in dress or toilet, want of punctuality in rising, meals, engagements, etc., too

rapid or too slow movements, gossip, cowardice, too great bashfulness or familiarity, lying, stupidity or density, selfishness, cruelty to animals, injury to flowers, trees, property, etc., meanness, flattery, affectation, disorderliness, too great primness and preciseness, excessive poise and reserve or deliberation, imposition, laziness, pandering, criticism, cheating in games, and bragging. While individual experience in many cases exposes individuals more to one of the above chologenic agencies than to others, there are undoubted indications of a tendency to rutty specialization here, so that if education may be defined, as I suggest it may, in part, as learning to be most angry with those things that most deserve it and maintaining a true perspective down the scale, most of our correspondents are not thus educated, and we have here another example of the *res augusta domi* of the mind for which heredity may in part account, but not wholly. The above miscellaneous qualities might be classified as æsthetic and moral. The deliverances of conscience and a good taste are, however, here particularly interrelated. Righteous indignation at unethical acts shades by imperceptible gradations into the milder verdict of bad taste, but even the latter is not without significance as a predisposing cause of anger.

Limitations of Freedom. Liberty is a precious possession and sedulously guarded by instinct. It is the indispensable condition of the completest and most all sided growth, and cannot be too carefully cherished. In an atmosphere of repression and of *dont's*, temper usually suffers, while one of the best cures of habitual anger is liberty, and complete occupation is often a preventive to it.

The Thwarting of Expectation or Purpose. When a story breaks off at the most interesting point and the mind is left in suspense, or when children are called away from stories just before the dénouement or games before the crisis, when they are kept waiting or if curiosity is especially aroused, or they are fooled and deceived, which is one common form of teasing, or if adults fail to realize the plans of their youth, the anger diathesis is called into play. In fact science, which is prevision, and consists largely in eliminating shock or the unexpected, has as one of its functions the reduction of this chologenic factor. Sudden fright, the blocking of a path or doorway by an obstacle, the stubbing of the toe or running into a post, are perhaps physical analogues of the same thing. We might laugh in some states, if Spencer's theory of a descending incongruity is correct, but we are more likely to be indignant.

Contradiction. Akin to the above cause is that of meeting opposition of our sentiments or ideas. Even when very different views are encountered in friends, especially if they are per-

sistently maintained, as well as when the direct lie is given, the conflict of mind, will or feeling arises, which may evoke the anger erethism. There are paranoiacs to whom not only the thought but the very word conflict¹ or even discussion excites painful symptoms, while the interest in a vigorous altercation or debate, although less than in a slugging match, is very great.

Invasion or Repression of the Self. Each personality hedges itself about with certain limits which, however widely they may vary for friends and enemies, are more or less fixed for each acquaintance or each mood. While many complain of not being understood, a frequent excitant of anger is being too well known. Hence, prominent among the assigned causes are being spied upon, tattled of, gossiped about, criticised, dissected, analyzed, detected or even reproved. One form of plaguing is to penetrate with undue familiarity, like nicknames, the adytum of selfhood, and mocking and ridicule find part of their effectiveness here. Here, too, belong most forms of impudence from our inferiors and insults from our equals.

Pride and a certain amount of self respect is one of the most irrepressible qualities of our nature, so that slights, contumelies and undue subjection or subordination, even slight wounds of vanity that are inflicted by ostentatious disregard of opinions, are keenly resented.

Injustice. Not only cruelty to animals or persons taking unfair advantage, but injustice to self, like being accused of deeds or words that are abhorred, abuse of friends, heroes, favorite authors, and in rare cases imaginary indignities to imaginary sufferers, are chologenic.

Individual Causes of a Special Nature. Some describe with considerable detail not only as special provocatives but as causes of distinct deterioration of temper, frequent experiences like finding books, utensils, tools, etc., out of place, persistent attacks of flies and mosquitoes, the perversity of walking with those who will not keep step or habitually lose it themselves, of having the toe or dress stepped on, of being jolted in a vehicle, crowded or turning out the same way in meeting others in the street, or even being touched by strangers, having the hair come down or out of order, the approach of a dog or cat, etc., busy work, being given too much to do, taunts, meanness. Indeed most have sore points or anger zones which may be based on individual weaknesses, or on peculiarities of form or action, or on special experiences of provocation.

Jealousy. Jealousy in seeing others preferred by teachers,

¹See the interesting case described by Dr. E. Cowles. Persistent and Fixed Ideas. *Am. Jour. of Psychology*, I, p. 222.

friends, acquaintances, or hearing them praised, may cause not only intense misery but angry outbursts.

SUBJECTIVE VARIATIONS.

Among these the changes from the general feeling of euphoria and well being connected with good health, which is the best preventive of anger, down to illness and pain, which are its surest promoters, are most important. Some forms of disease and early convalescence are particularly characterized by irascibility, and children who are in abounding health have, other things being equal, perhaps the best immunity from temper. Closely connected with this is the state of rest or fatigue. In the morning after a long vacation, provocation is, as every one knows, far less easy than in the state of exhaustion. Hunger and sleepiness, too, incline to anger, and satiety to good temper. The optimum of temperature helps the disposition, while excessive heat and cold make it fragile. Dentition and menstruation are very important sources of variation of the anger point, which from all these considerations seems to be even more fluctuating than has been supposed. General prosperity and a sense of doing well and getting on in the world, as contrasted with ill fortune and calamity, makes for exemption from anger, as does a general good conscience, settled and tranquil religious opinions, good friends, an optimistic philosophy, sufficient but not too much work or occupation, and in general absence or removal of all the chronic causes of fretfulness. The states of irritable weakness and hysteria are characterized by fluctuating moods, *e. g.*:

Heredity. On general principles it would seem that a diathesis so marked should be as hereditary as anything in our psychophysic organism. While our data are far too few for inference, it would seem that inheritance has here a wide scope.

F., 39. My father was never even hasty, but my mother was of a cranky, tempery family. I am for months and for occasionally years, sweet and placid as my father, and then without provocation I have spells of great irritability like my mother's people.

Eng., F., 11. My aunt who brought me up has given me her quick temper. It came by contagion and I think not by heredity.

Eng., F., 18. My father is the calmest and most placid of men. My mother one of the most fiery of women. I am all mother in this respect.

Eng., F., 20. A young man of 20 I have known from childhood inherits great irritability which can brook no restraint, who suffers to the point of tears from wounded pride, can bear no teasing or reproof, directly from his maternal grandfather. It seemed to lie dormant for a generation.

Eng., F., 23. My mother is very irritable. Her father had a whirlwind temper and five of us seven children have it, and in two it seems quite absent.

Scotch, F., 26. One brother, one second cousin, and one maternal

ancestor are very hot tempered like me, the rest have more or less escaped.

Absence of Temper. Some seem born untempered, nothing flusters or ruffles them. They are passive, easy, lazy, inert, apathetic, and while often imposed upon are generally liked, rarely teased or abused. Such cases usually lack not only energy, but the power of enthusiasm and capacity for erethic states generally. Too good a temper not only precludes from the luxury of intense forms of manifesting life, but is usually associated with a certain insensibility, lack of self respect, ambition and will power.

F., 39. My provoking good temper has been my life-long reproach. I fear it is, as I am often told, apathy, for I am easy going in matters in which I should take more interest. Then, too, my shyness keeps me from showing what I feel deeply.

F., 21. I am by nature rather unimpassionate and indifferent, have little temper or impulsiveness and rarely get enthusiastic. I do not consider this a virtue, but it is not because I am too lazy to show temper.

F., 28. In good health and happy circumstances, I have yet to see a sour spirited child. I think it would be possible to rear many children in such a way that they would have no experience of anger.

F., 29. I know a girl who never in the world could by any possibility be roused to temper. Her temperament was so inert, she says she cannot get up anger when she knows she ought to. A world of such people, I think, would be very monotonous.

F., 27. I often liken myself to a happy, clear, busy, sparkling brook, rarely interrupted by any one stirring the mud at the bottom. I can be roused, however, and the time before normal conditions recur depends upon the depth to which the mud was stirred.

F., 18. I know a girl of very hot temper, who when provoked does not give way, simply and solely because she is too lazy to take the trouble. It fatigues her to control herself.

Teasing and the Cry and Anger Points. Hectoring, plaguing, baiting, worrying and tormenting in all their many forms are largely, though not wholly, motivated by what might be called the psychological impulse to see what another will do under these new conditions of strain or temptation. A German student told me he never felt acquainted with a new man enough to know whether he liked or disliked him, until he had seen him more or less intoxicated. This sentiment is very wide spread, and is akin to Plato's suggestion that counsellors should discuss topics at night, when drunk, and decide them in the morning, when sober; so for many anger removes masks, and what Nordau calls the conventional lies are thrown off and we seem to see the lower strata of what a person really is at bottom alone, or in the dark. Repulsive instincts and habits manifest themselves better sometimes to the common acquaintanceships of years. Temper is tested in many forms of hazing, fagging, etc., to see if the victim will retaliate, how much

provocation is necessary to bring him to that point and what form the reaction takes. If peculiarities of body, dress or manner are salient, these are likely to be sore chologenic points of attack. Girls who blush easily or are so ticklish that even a pointed finger sets them off, have red hair or even deformities, are particularly tempting to constitutional teasers, who are usually, though not always, cooler and better tempered than their victims. These experiences are really very often educative and develop control in the victim, although sometimes exactly the reverse is true, and tempers may be thus spoiled. Teasers with a strong propensity for practical jokes, playing April fools, etc., who are usually older and stronger, often profess and sometimes really have the purpose of teaching control. When anger is once roused, the goal with some is attained. More commonly, ridicule is then applied which intensifies the rage, and other methods of fanning it to its utmost often give the keenest enjoyment to the provoker. This peculiar pleasure in witnessing manifestations of anger is partly due to a sense of superiority of poise, and no doubt partly to pleasure in witnessing primitive psychological forms of expression, while the factor of cruelty and sport with a victim in one's power is probably the strongest motive of all. The tormentor chuckles, his eyes sparkle with delight, he claps his hands, dances, jumps up and down, rubs his hands, slaps his leg, points his finger, taunts, jeers, yells, calls it fun, and all this tends to egg on the victim to extremes, the memory of which is well calculated to cause regret, mortification, and the resolve for better control next time.¹

With the cry point, no less variable than the anger point, the case is very different. The tormentor often stops short at this point, and sometimes the mood reverts to pity, sympathy, and regret. This is especially the case if the cry is one of collapse, surrender or real grief, with no impotent anger in it; but the aggravation may be pushed still further with accusations of babyishness in quest of a deeper lying and later reaction, and particularly a boy that has no fight in him is despised.

II. PHYSICAL MANIFESTATIONS OF ANGER.

Upon this topic our returns are fullest and have been carefully tabulated and compiled with the following general results:

Vaso-motor Disturbances. Eighty-seven per cent. of the best cases describe flushing, and twenty-seven per cent. describe pallor as one characteristic of anger. The heart is often immediately affected and sometimes with very painful cardiac sensations.

¹ See Burk: Teasing and Bullying. *Pedagogical Seminary*, Vol. IV, p. 336.

It pounds and bounds, there is a feeling of compression, and the literature elsewhere referred to describes several cases of death from cardiac lesion thus caused. Occasionally some pulsation is felt sometimes painfully in a particular part of the body. In one case in the palm of the hand, another specifies the wrist. In many cases severe headaches with rhythmic intensifications for each pulsation are caused by the general disturbance of vascular tonicity. One woman describes the enlargement and pulsation of the temporal artery as the sign by which she best recognizes temper in her husband and describes a peculiar whirling sensation in the head. Stigmatization over a large V shaped area in the forehead occurs in one case, the face may become mottled, certain local pains sometimes sharp, which attend anger, seem thus best explained as does the dizziness and faintness often mentioned. The nose grows red or blue in one case, the eye balls are blood shot, and erethism of the breasts or sexual parts may occur. In one case the first sign of anger is nose bleed, and if it is copious the anger fit is less violent. Menstruation may be arrested, sometimes suddenly, and other psychic weather signs indicate a more or less intensive vaso-motor storm.

Secretions. The glands are no doubt far more closely connected with psyche than has hitherto been supposed, and we shall have no doubt ere long a glandular psychology. Of course the most common secretion is that of tears, which are specified in about 35 per cent. of the returns. Tears may be shed when other symptoms of crying are repressed. Salivation is not only more copious, although in later stages of a long rage it may be repressed till the mouth is described as "bricky dry," but perhaps its quality may be modified from the stomach or otherwise, since in some cases a bad taste is characteristic of anger. Its effect upon mammary secretions in nursing women is very marked, sometimes by way of almost total and sudden suppression, often by some modification of the quality of the milk, so that the infant is made ill. Urinal secretion is often affected rarely by way of suppression, but is commonly more copious, paler and with less deposits. Popularly anger is thought to be closely associated with the liver, and a bilious temperament is supposed to be peculiarly irascible. In not less than a score of cases, attacks called bilious are ascribed as the direct effect of anger. No less frequent results are constipation and diarrhoea, which may at least belong in part here. There is no case in our returns that suggests any modification of the action of sebaceous glands, but in two cases a rash, once said to be all over the body, follows every fit of anger in a child; and in the case of one male sexual secretion attends every violent outbreak. It would be very interesting to know how common this

is, and a collection of facts here might throw valuable light upon Sadism and Marrochism. Sweating may be copious in cases where increased muscular action fails to account for it. Whatever may be true of other emotions, some of which we know to be closely associated with glandular action, there can be no doubt of the relation here.

Salivation, Swallowing and Nausea. The act of swallowing somewhat like that of winking is normally repeated at brief but varying intervals through the waking hours. Just how much is due to the summated stimulus of accumulating saliva and how much to the constantly increasing lability of the nervous center involved it is impossible to determine. Of these two factors, however, there is abundant reason to believe that each is independently variable. Many returns specify swallowing, often several times in succession, as one concomitant of the early stage of anger. Occasionally the impulse to swallow is strong but is inhibited, and gagging, lump in the throat, and temporary paralysis are described. This beginning of the peristaltic action that forces food through the many feet of the alimentary tract is, of course, far more under control than the latter stages. The will delivers the bolus of food to the back of the mouth, whence it is taken in charge and propelled by the more reflex mechanism. In carnivora the attack and slaughter of prey is the normal prelude to eating it, and like salivation this movement may be a residuum of an ancient association without assuming any earlier canibalistic stage. The question is how far the momentum of this paleo-psychic association enters into the psychoses of anger, which has as its tap root the quite different impulse of defense and resistance. That it enters, I think there can be no doubt.

Nausea with anti-peristaltic symptoms more commonly occurs near the end or in the reactionary stage of an anger fit, and sometimes acts as the chief inhibitory motive to the impulse to swallow. Its cause here seems to be mainly the fatigue from over excitement or exertion, any form of which may cause it. There seems reason for raising the query, whether these two contradictory functions are so related that if the first is overdone without sufficient stimulus, incipient nausea arises in a compensatory way. If one swallows as frequently and as long as possible without eating and when in the normal state, incipient nausea arises. Swallowing is the act of appropriating the material on which life is made, and nausea means the repulsion or even the regurgitation of it, so that its symbolic significance is great and has been well exploited in both language and in æsthetics.

Spitting. In common with other secretions, salivation is often increased in anger, sometimes as would appear with, and

sometimes without, chewing or biting movements. In some of our cases the saliva is copious and runs from the mouth upon the clothes in a profuse and offensive way, and in three cases it is described as frothing at the mouth, and in one as white froth. In the acme of the stress and strain of fighting, this is puffed or blown, sometimes it would appear purposively and at other times unconsciously, upon the clothes or in the face of the opponent. Just what all this phenomena involves is difficult to determine, but it would appear that at least in some cases the drooling in anger is partly due to temporary and partial paralysis of the lips and perhaps of deglutition. Local exhaustion may be carried so far that it would be no more possible to spit than to whistle. To associate the salivation of anger with primitive anticipation of savory food in such cases may seem a long cry, and yet it is not theoretically impossible. In creatures that kill their prey, especially if it is large and involves an erethism like anger, this association may have been established by very long and inveterate experience. Spitting proper begins consciously with what might be described as a t-p movement by slightly protruding the tongue, drawing it in rapidly between the lips and projecting its load of saliva by a slight explosion of air compressed in the mouth after the tongue has been withdrawn and before the lips have closed. Children in the second and third year learn and sometimes practice this. This movement has apparently little utility for the child and is essentially a sign of aggression. It requires much delicacy and co-ordination of labio-lingual movements, and would probably be impossible in a creature less highly endowed with articulatory capacity. It is therefore of special interest. Another mode of spitting, which appears to be later, is what might be called the p-t movement, in a sense the reverse of the preceding. It consists in thrusting out the saliva with the tongue with much breath pressure after the manner common among tobacco chewers. This movement is more difficult and is often practiced with unpleasant results. From the age of four or five years on to near puberty, spitting may be a prominent expression of anger. At first it commonly seems directed toward the face, then towards the shoes, clothes, hands, seat, etc. Contests are described among expert spitters, both as to greater distance and greater accuracy. The victor in a fight sometimes spits in the eyes, hair, mouth, etc., of his prostrate enemy. The folk-lore upon this subject is very voluminous and pertains to the number of times one spits ceremonially upon given occasions, the place, direction, etc. It is, of course, one of the most extreme expressions of contempt and excites correspondingly intense repugnance. Saliva, of course, is a very effective medium of contagion, but the extreme abhor-

rence of the act when contrasted with the attractiveness of kissing, which often involves exchange of saliva and may be contagious, is hard to explain. Of course we have no adequate evidence of sufficiently venomous ancestors of man to sustain an argument that this horror is a toned down fear of virus-bearing sputa. The most that can be said is that there is no positive disproof of it and that the possibility is open. That even the bite of normal man or his progenitors is poisonous to another member of his own species, is unknown. The other possibility is that this abhorrence has some of its roots in long accumulated experience of contagion of morbid germs through saliva without dermal rupture, and that we have here an instinctive prophylaxis against contagion, which has given the folk-lore its character and form.

Respiration. Modifications of breathing are among the marked accompaniments of anger. Sometimes deep inhalation, often through the nose with clenched lips, perhaps several times repeated, as the need of increased oxidization deepens; sometimes rapid breathing, which may be through the mouth, and give the effect of panting and occasionally almost gasping, is described. Stutterousness, almost suggesting a snort, purring, snoring, choking, gagging, and sobbing noises that almost suggest hysterical globus—all these cannot adequately be accounted for by increased muscular activity. Whether the type of respiration changes from abdominal to pectoral or conversely, and what the form of the respiratory curves through a fit of repressed anger are, it would be interesting to investigate. Amphibian life requires periods of deep and rapid breathing, alternating with longer periods of rest, and it is not impossible that the preparatory stage of anger symptoms is analogous in some cases to preparation for a long dive with violent exercise.

Noises. In twenty-eight young children screaming is more or less fully described as the most characteristic expression of anger. Crying is a language all its own, and as it develops in the first year or two of life the mother or nurse readily distinguishes the cry of hunger, fatigue, wetness, pain, etc., but none is more characteristic than that of anger, which is loud, sharp and generally sustained. A little older children develop sometimes very characteristic snarls, growls, grumbles, whoops, bellows, chatters, bleats, grunts, barks, or noises that sometimes consciously, or more characteristically unconsciously, suggest the cries of animals. Later, occasionally, specific words of warning, threat, defiance, or specific oaths become habitual and characteristic of rising temper. In some children anger brings on a fit of stuttering or a peculiar tremor or staccato, or speech may be interrupted by a noise suggesting a

sob. In older people the voice is perhaps the most sensitive of all the registers of anger. It is loud, shrill or harsh, with variously modified rhythms. Later yet control and repression may develop a peculiarly slow, calm, low, precise utterance which is with difficulty, and not without considerable acquaintance, recognized as a danger signal. One woman almost whispers, with little phonation, but very intense labio-lingual expression, and unwonted relations of these two elements of speech are common. Many become exceedingly voluble, irrepressible and almost eloquent, while some are glum and monosyllabic. Not infrequent is the habit of soliloquy, and many seek solitude in order to find, perhaps in monologue and perhaps in other forms of loud vocalization, the readiest vent for passion. One woman is conscious of no modification of voice in anger except a slight tendency to be hoarse afterward, even when she has not spoken. Perhaps a dozen well-described cases cannot speak or make a noise, but are vocally paralyzed or they cannot speak without crying. Theories of the origin of language like those of Noire postulate a very close connection between the intense muscular tension and loud phonation. The characteristic cry of epilepsy shows the same, as does the battle cries of various savage races. College yells at athletic contests are toned-down cries of defiance.

The close association between anger and noise is seen in many ways. Some stamp, walk with heavy or with shuffling steps, must pound something with a stick or with the fist, or beat a loud tattoo with the fingers or feet. One young woman goes by herself and slams a particular door; a girl pounds the gutter with a stone; a boy throws stones against the loose boards of the barn or against the resonant surface of a large sugar pan. Several work off their anger by playing or even pounding the piano. The gratification in these cases appears to be not solely from making, but also from hearing a loud noise.

Involuntary Movements. Of these there is a long list, many of which fall under other captions. Changes of muscle tonus are seen in the changes of the voice elsewhere noted, and in the relaxation or, less often, the tonic contraction of the sphincters, which causes escape or retention of the excreta. Horripilation is sometimes described, the skin becomes rough, and shuddery, creepy, crawly sensations occur. In one case twitching of the skin on the right leg, in one upon the shoulder, and often tonic or clonic or choreic movements of the face and fingers are described. The relation of voluntary to the involuntary activities, which is always a variable one, suffers in anger, and the disturbance and the readjustment is best seen in weak persons with strong temper after it is over, in which

arterial and cardiac tension, respiratory rhythms, etc., are modified.

Attitudes and Postures. In anger the body often becomes more or less stiff and rigid, is drawn up to its full height, sometimes with an attitude of pride that suggests strutting, the legs are placed apart when standing, and all the antagonistic muscles are tensed up, so that there is a great expenditure of energy, sometimes with very little activity, along with which goes a feeling of great strength, a difficulty of making correct or quick movements which may otherwise be normal, and which reacts sometimes into the stage of collapse later. Some habitually assume a characteristic attitude when angry, usually erect. Two seek to place the back against a wall, post, or other firm background. Two are impelled to sit and eighteen to lie down, mostly upon the face, and perhaps to roll, writhe, squirm or wriggle. One must throw herself into a chair sideways, in a particular manner, with feet drawn up. The arms are more commonly held down by the sides with slight pronation or supination movements, with fists clenched; sometimes one or both hands are placed against the breast. One young man always thrusts one hand into his coat and the other into his pocket, and probably a large number of more or less characteristic positions could be collected.

Butting and Pounding the Head. Many infants when angry and powerless to hurt others, strike their heads against doors, posts, walls of houses, and sometimes on the floor. In this gesture the head may be struck so sharply as to cause pain and crying, but more often it is pounded several times with a violence which would in a normal condition cause weeping but does not now. In some children bruises and discoloration lasting for days results. Occasionally in older children headaches seem to be thus caused. This expression of anger rarely outlasts early childhood, but sometimes persists into adult years, as in one striking case elsewhere in our returns of a young man who habitually pounded his head on the floor when his best girl danced with another. Sometimes the head is struck violently with the fist and quite often, not only in infancy but in boyish fights, butting is a mode of aggression. Some boys love to butt and attain great ability. One is described as running a rod at full tilt and injuring a companion dangerously in the stomach. Another boy practiced butting hard objects to attain virtuosity. Blows with the head are often described as sideways; the forehead or particularly the corner of the forehead, being the point of contact. This is interesting when we reflect on the number of horned species in the human pedigree. Why should man hook like a cow or butt like a sheep or hammer with his head, and that, too, when the skull is thin and elastic,

and the brain so delicate an organ? Surely there is nothing in the present human environment to adequately explain why such an experience, which undoubtedly causes more or less of a shock, can give satisfaction or relief in anger save on the general theory that it demands augmented motor and sensory experiences. Early vertebrates, both aquatic and terrestrial move head first, and there is thus a long ancestral experience of removing obstacles and breaking way through the water with the head. That there is some relation between these manifestations of anger and previous phyletic experience, I think can at least not be denied. In children incipient anger often manifests itself by the threatening sideway nod which very clearly suggests danger and seems to be the residuum of an older mode of going at things. In anger the head is often thrown down and the eyes partly closed as if in preparation, and square nodding in front, especially if repeated and with accompanying pressure of the lips, is a threat. When the fore extremities were engaged in locomotion or otherwise, the head played a more important role in aggression than in bipeds. Often in children we have the opposite anger gesture, instead of going at things head first the head is thrown back out of reach and out of the way of attack. Several boys, however, in our returns seem to be proud proficients in having skulls unusually thick with which they hammer the heads of their more tender opponents, until they cry for mercy; whereas others particularly dread combats lest this part of the organism should be injured.

An occasional expression of anger is stamping upon the toes or feet of the opponent or upon other parts of his body, when he is down. This is sometimes done with the heel and with great cruelty and deliberation. One boy injured for life two fingers of his adversary in this way. Stamping perhaps really begins in the foot movements of infants before they can walk, who angrily kick out with the sole of the foot against persons, the wall or any other object. In older children to stamp the ground or floor is an admonition always to be heeded, for it is a menace of starting to go at the adversary. In many savage dances stamping the ground, sometimes with bare feet and with great force, is an expression of annihilating an imaginary foe. Sheep, some birds, and other animals do the same. In only one case does the child make a movement described as pawing to get at an antagonist; but the writer remembers a case in his boyhood where this was carried to a marked extent, although probably in imitation of bulls. Stamping suggests having the enemy under foot and thus complete triumph. A vigorous up and down movement can tread out life very effectively. Our returns show that soon after learning to walk,

children vent anger thus first with no reference to an adversary, but later looking or pointing to him and thus launching a threat, where often an attack would not be ventured. The first seems quite automatic and unconscious, possibly the noise itself may have been one factor. When there is no alternation but with one foot and repeated, the gesture surely has some unique significance.

Making Faces. Violent anger often distorts the features, both by engorgement of blood and changing muscle tension. Often this is described in the returns as bringing out strange, perhaps repulsive and even animal traits and resemblances, and it may extend to nearly every part and feature of the face, modifying its natural hue, bring out veins and wrinkles, and occasionally unilateral modifications. Not infrequently the subject is painfully conscious of looking unusual and of having strange facial sensations, and this and the instinctive corrective impulse often aggravate the difficulty. Although there is very great individual difference in this respect, the face sometimes betrays sentiments almost as delicately as the voice. Many facial movements, too, are unconscious. In early childhood the very common vent of anger is consciously making faces. Our returns do not permit reliable statistical inferences concerning the frequency of the different types of contortion. Opening the mouth and protruding and often moving the tongue, especially out and in, turning the end of it up to show the under side, running it down toward the chin, flattening it, wagging it sideways—are specified and suggest contempt and perhaps insult. Drawing back the upper and the under lip to show the teeth, especially pouting or protruding the lips, stretching the mouth laterally as far as possible, drawing down its corners, projecting the under lip and more rarely the upper one, twisting the jaw sideways, projecting the lower one, drawing in one or both lips, opening and shutting the mouth, sometimes in a gnashing way, a special kind of nasal sneer, and other movements hard to describe that suggest very repulsive smells, tastes, perhaps to the point of nausea, and movements that suggest the threat of biting, occur. The upper part of the face, is on the whole, less involved, and vast as the individual differences are in facial mobility, they are greatest of all for the forehead. Some have little power to raise the eyebrows or produce longitudinal wrinkles above them, and perhaps still less power to frown with vertical wrinkles, and fewer yet can produce both at once. There is less unilateral power of movement in the upper part of the face. The eyes may be open very wide, emphatic and frequent winking makes them flash and sometimes they are nearly or quite closed, but more often rolled up, down or sideways, to show the white. Some

children become almost virtuosos in making faces and this propensity seems to culminate shortly before the dawn of adolescence. The number of combinations of all the possible movements here is vast, and one cannot look over the literature upon the subject without being impressed with the fact that Darwin, Duchanne and the Delsarteans have as yet barely entered this interesting field. Head positions and movements are another factor which serves to bring out the effect, and children often use the fingers to intensify eye and mouth distortion, while gestures and noises aid to set them in relief. Interest in facial expression is deep and instinctive. All children study the face and especially the eye as an index of feeling and disposition, and the variously toned fear and pleasure in them suggest the strange passion of savages for masks as seen in their dances, many of which even introduce marked animal features. Pleasant expressions of the face are habitual for happy moods and for friends, and the principle seems to be that the degree of departure from one's best expression indicates the degree of dislike. Many facial expressions are no doubt directly intended to strike terror, but others are suggestive of various degrees of repulsion. Reverence and respect have their own characteristic physiognomy, while contempt even parodies or else seeks the contrary of it by the law of opposition. Very deep seated is the instinct of fear at very unusual expressions of face in those we know.

Biting. Sixty-eight females, forty-eight males. From our returns it would appear that this anger act culminates a few years before puberty and has perhaps a slight and brief increment at its dawn. Very young children, soon after the appearance of the first teeth which are small and sharp, not only try them on all sorts of things but in anger can make a painful impression upon fingers, nipples, skin, etc. Some children run up to an enemy, inflict a quick hard bite, and retreat with no other aggressive act. Others bite firmly and hold on with tenacity, and fewer in our returns chew what is bitten in anger. In their fights, biting often plays an important role with children. In a few cases children bite their doll, the foot or tail of dog or cat, sometimes the place to take hold is chosen with deliberation, and the grip is so firm that it is with difficulty that it is released. We have records of idiots that seek to tear flesh in their rage. In many a brawl in the lower classes, noses, lips, ears are chewed, and occasionally bitten off and other damage is inflicted elsewhere with the teeth. I once saw a man in a cheap show who earned his living by killing rats with his teeth in a small pen, with no aid from his arms. He seized and shook them near the back of the neck and was rarely bitten himself. In the sex aberration of masochism, biting

sometimes plays an important and even a dangerous role in the organism. The biting of anger shades off into gripping and grinding the teeth, which is so long a manifestation of it even in adults, connected with the act of retracting the lips to show them. Sometimes one method of control of anger is to bite the tongue or lips till they bleed, or to grate the teeth. A Baltimore murderer, under sentence of death, once told me that if he had had a little stick of wood, which he always carried in his vest pocket to bite when he was angry, he would not have inflicted the fatal blow for which he was to die. Of course the jaws in man are degenerating from the size and strength they had in his prognathic ancestors and in his rodent or carnivorous relatives in the ancestral line, but just as his type of dentition is composite, so this function seems made up of factors from both ruminants and carnivora now almost inextricably mixed. A large, strong jaw still suggests firmness and a small one weakness of character, and in children as in adults, there are the greatest individual differences here. Some seem made to perform the gymnastic feats of sustaining their whole weight, lifting or swinging heavy objects by the teeth alone. Both the first and second teeth often pull unusually hard and we may have here the basis for a position in what may be called dental psychosis. A distinction is repeatedly noticed in our returns between the square, even biting of young children and the more dangerous side grip, which is preferred when the eye teeth appear. Our returns do not suggest whether the biting of anger shows an increment at this stage of development.

Two things seem certain. First, that even modern civilized man has more or less adjustment between dental structure and function, the latter being proportionately less than the former. The passion of children for biting sticks, chalk, rubber, pencils, slates, chewing gum, etc., suggests that the biting of anger may be intensified by the fact that this function is declining and is both vented and mitigated by such activities. If man ever approximates an edentate stage with less mandibular power it will no doubt coincide with modification in this respect. The other suggestion which I venture is while the sneer, the *spasmus cynnicus* of pathology, may no doubt be gestures which are relics of dental attack, the kiss seems to have a very significant and opposite function. Its meaning seems to be that where danger once was greatest, when we reflect that the maws of their enemies have been the grave of most species, that now not only a truce but complete trust, and even pleasure, reign. One feeble-minded child is described as making the gesture to kiss, but when the lips were presented set his teeth firmly into and almost through them, and, in the

opinion of the reporter, actually sucking with pleasure the blood that flowed.

In adults the mouth often twitches, the lips are white, pressed or cold, and in the reaction the teeth often chatter. In 650 well-described cases, grating the teeth is mentioned in 27 per cent.; showing them in 21, quivering lip in 18, compressed in 11, pouting in 9. Some describe a peculiar "mouth-consciousness," others chew the tongue or inner wall of the cheek, swallow, choke, cannot speak, etc. Such expressions as "Would like to devour," "feel like eating, tearing, rending, crushing," occur with dental experience. Whether these are the last vaso-motor or involuntary automatic residues of what was once a fully unfolded carnivorous psychoses we can only conjecture. M. D. Conway, in his demonology, describes the devils or ex-gods of most primitive peoples as having for their chief characteristic capacious maws and dreadful mouths, with great, sharp and cruel fangs. The marks of many dances and ceremonies of the North American aborigines¹ are thus distinguished, and the instinctive fear of big teeth, so characteristic of infants is a psychic indorsement of the same fact.

Scratching. This is mentioned in 142 cases as a characteristic expression of anger, and is described more or less fully as habitual in the cases of thirty-eight males and eighteen females. The age at which it is most common is from two to nine years; and at fourteen, judging from our meager data, it entirely stops in males and is greatly reduced in females. While boys predominate in early childhood, the proportion is apparently reversed in adolescents and adults, women with their conservative organism then predominating. Instead of being clenched, the fingers are hooked rigidly and the movement is from the elbow and more from the shoulder, and from up downward. The point of attack is generally the face, more often the eye, although neck, hands, arms, and even the clothes are often scratched. In several cases anger at dolls, animals, inanimate objects and even self are expressed by scratching. One child lacerates her own face when angry. Two scratch the paint off doors and articles of furniture against which their rage is excited. Several have inflicted serious laceration upon younger children and infants, but in most cases the favorite point of attack seems to center about the eye itself, into which it sometimes seems a strong childish instinct to stick a finger. Our data give no indications that there is here any trace of an old instinct to attack the throat or any covered parts of the body. Occasionally in anger the hands are so tightly clenched

¹In My Study of Fears. *Amer. Jour. of Psychology*, Vol. VIII, note, p. 312.

that, either with design or incidentally, the nails are forced into the palms. It would almost seem that some children have a love of scratching the skin as a motor activity independently of the sensation of stimulus or relief of itching along the afferent tracts. In the felidæ and in other animals, both in and near the conjectured line of human evolution where claws are best developed in structure and function, these movements seem among the first group to be acquired, especially by the forelegs after and superposed upon their locomotor functions. These movements are more specialized and accessory than walking, and among the climbers have a great but very different role. This may be set down as one of the first uses, then, not merely of the digits, especially of the pentadactyl hand, and this psychic co-ordination with dental function is close. The infant's finger nail is much sharper than the adults, is more curved, and hence has more sustained rigidity, while the skin of infants is thinner and more tender. Hence the greater effectiveness of this mode of attack. Very interesting are the few cases in which scratching is not mentioned, but in which one of the marked signs of anger which our correspondents describe in themselves is the purpling of the flesh under the finger nails. Interesting, too, are four cases where in anger a shudder which suggests scratching a file, rusty saw, or some other object, is provocative of incipient horripilation or some nervous spasm. This function is so co-ordinated with structure that careful and regular cutting of the nails may reduce it, as does the enforced wearing of gloves or artificial tips where the habit is abnormally strong. Some people shudder whenever they hear a noise that suggests scratching hard objects or the earth, and the very thought of scratching a brick or stone causes "sinking" symptoms of a very marked nature in F. 18. Long after this habit has passed away, many people describe as a symptom of anger the feeling that they would like to tear the flesh of the offending person. Again, some children cultivate long nails, less for use than for ornamentation, as several Oriental religious sects make it a sin to cut the nails, even if they penetrate the hand. Nails have sometimes an important industrial use in occupations requiring fineness and exactness. A few barefoot boys are described as scratching the antagonist with their feet. Civilization has so long required trimmed and shortened nails that it is possible that this has had an effect upon their reduction. The habit of biting the nails to the quick has very likely a kindred psychic origin with the impulse to trim them. Very curious is the survival in some of our cases, particularly females, of habitually trimming the nails to a point more or less sharp or obtuse. How many modern industries that involve scratching, like

movements such as writing, have any relation with any such ancient function, it is impossible to tell.

Pinching and Pulling. This culminates relatively late in childhood and continues at least to maturity, and probably through life. The strength of the opposing thumb must become well developed before it can be effective. Small children pinch the skin, often without bringing the nails to bear; the ear and nose are thus attacked and pulled. The arm is often thus made black and blue; the back of the neck is seized and pinched till the victim obeys the command to say "Shakespeare" or some other words, or to do some ordered and unusually humiliating act. Strangulation is sometimes thus attempted and the sexual organs may be thus assailed. Along with this action often goes pulling and shaking, indeed infants often pull hair and beard before they learn to oppose the thumb, and the difficulty of disentangling these from the baby's grip suggests arboreal life, in which the young thus hold to the shaggy sides of their parents as they moved among the tree tops, an act which natural selection has developed by eliminating those that let go and fall. While the child rarely shakes an object grasped with its teeth, objects clenched with the hands are often shaken. Both ears are grasped and the head violently pulled, twisted and shaken. One or both arms are thus used as handles by which to shake the body, so that the pain may be either in the pinch, in the pull, or in the shake. Where nails are used, the flesh may be dented, bruised or occasionally cut, and two instances are cited where poisoning is believed to have been thus conveyed by bacteria under the finger nails. The ears are sometimes permanently mutilated or distorted in this way, and far more serious is the injury, and once the death, reported from "Abelarding." In some conflicts handfuls of flesh from the breasts or any other part of the body are clutched and grave internal injury done. In one case, hair is said to have been pulled out by the roots and the scalp torn. In two descriptions of a fight, the tongue was thus attacked. In one case, the mouth was forced open for this purpose, and Mantegazza tells us that it has been thus torn out and the lips and the alae of the nose torn. In some forms of fighting the antagonists seek to pinch the fingers of their opponents, and particularly to twist and double them up to the point of dislocation. Sometimes any part of the body is grasped for a hold as one would grasp the clothes or through them. The variety of tortures possible in this way is great, and all must have been developed since the hand acquired its biped strength and dexterity. Not only folklore, but popular tradition, describes hand power developed to such an extent that by a single favorable grip an enemy has been disemboweled.

Kicking. This we distinguish from stamping as a lateral movement at right angles to it. It begins later, is far more common, and lasts through life. In most children the movement is front, but in some the stroke is backwards with the heel when it is more downward. The front stroke must discriminate very carefully if the foot is unarmed with a shoe where the blow is applied, for if it were a hard place in the antagonist's body the agent suffers more than the patient. Hence, the abdomen or the posteriors are common points of attack, the latter particularly permits the infliction of greater force and the blow has less danger. With shoes or boots any part of the body can be attacked, and the injury and danger is far greater. Some oriental forms of wrestling might be described as almost solely made up of tripping and kicking, where the arms and hands have nothing to do. I once saw two boys fight solely by trying to scratch with the feet. Heavy foot gear makes this expression of anger almost approximate in prominence that which it holds among some of the ungulata. One object is here often to overthrow the adversary and is peculiar perhaps to bipeds, who have assumed the erect position and for whom balancing upon a few square inches of foot surface with the center of gravity so high above, is quite a feat of equilibrium, and makes a fall often dangerous and an upright position always a little precarious. The usual strong forward kick as, *e. g.*, in football, and which is susceptible of a good deal of culture, is a mode of aggression which must have been originated however distinctly after the erect position had given the posterior limbs their strength and weight. It, like many other primitive modes of anger, has an extremely rich symbolic and metaphorical philology.

Hugging, Striking and Throwing. Young children often vent anger by hugging, and it is especially common among girls. The offending person or even animal is thus punished. As an aggressive method, this movement may become very effective and makes for strangling, the compression of crushing, and bones, joints and tendons may suffer thus.

Anger, however, is essentially repulsive and the gesture of pushing away is more common. From the latter, it would seem from such data as are at hand, striking evolved. The first blow in infants is a literally repulsive or standing off gesture. Although animals kick, butt, and strike with paws, etc., man might almost be called in a peculiar sense, the striking animal. His blows, although at first, perhaps, scratching movements, and at any rate more likely to be from above downward, change later into slaps, and last of all comes the straight out blow with the fist. This can, as pugilism shows, be made exceedingly effective with the unarmed hand. The skill and

dexterity in choosing the place and time of a blow, throwing the whole momentum of the body into it, to say nothing of foreseeing and warding off the blows of the adversary, make the development of this very human mode of attack susceptible of great perfection, and constitute the charm of slugging and mauling contests according to fixed rules, which eliminate forms of onslaught phyletically lower.

With the use of weapons began a new era. Even a stone or stick gives greatly increased efficiency and adds to the danger. Clubs, axes, spears, and a great variety of savage implements of warfare enhance many fold the dangers of conflicts and have prompted the invention of shields and other defensive and protective implements. It would seem from our knowledge of apes to be well established that they can use clubs and stones at least for certain purposes, but it is doubtful if these have ever been a factor in their combats.

Throwing introduces yet another development from the striking out blow. A missile is propelled far beyond the reach of the body, and bows, guns, etc., have made this the most effective, as it is the last, mode of offensive warfare.

We have space for but a few cases.

1. M. Fits of anger are plain in a child 7 months. She holds her breath a moment, seems expectant, grows red in the forehead and cheeks, straightens out stiff and rigid, trembles, chokes, and laughs merrily.

2. M., 8 months. Throws himself on his back, lies rigid and still, but yells at the top of his voice.

3. M., 15 months. Strikes himself savagely in the face, pounds his head but never any one else, spits at us and cries "Go way."

4. M., 2. Was set down hard on a chair for disobeying. He grew pale, then red, sweat profusely, made mouths as though trying to talk, but his teeth chattered. I only saw this once and am sure it has not occurred within the past fifteen months.

5. F., 26. A boy of 3 began to bite when in a temper. He always bites and kicks, throws anything and flushes.

6. F., 21. A 3 year old girl of violent temper, once punished by being kept home from a ride, broke out in sobs that appeared uncontrollable. Suddenly she stopped short and calmly asked if papa was in. Being told no, and realizing that there was no possible restraint from that quarter, she resumed her sobs.

7. Eng., F., 41. I know a boy of from 3 to 5 who had marked relaxation of all the sphincter muscles when angry.

8. F., 41. A delicate boy from 3 to 5, when angry, flushes all over his face, neck and ears. Anger so completely absorbs him that once he was undressed during a mad spell and did not know it.

9. F., 4. Prayed one night for the hired men. The next day one of them, a disagreeable tobacco user, kissed her; that night she prayed unctiously, "God bless papa, mamma, etc., but dear God, damn Mr.—."

10. M., 4. In a tempest of sudden anger strikes any one in the face with all his might. This he used to do when he was a year old, but in a moment he wanted to kiss.

11. Papa told M. to sit down. It was his evening play hour. He

drew himself up, looked his father full in the face and said "you dasshopper" three times, and then obeyed.

12. M., 4. In a passion has a blind rage, has thrown forks and knives at people, broken dinner plates and glass, etc.

13. F., 5. Is usually bubbling over with fun, but when crossed, rules the household, which has a terror of her tantrums. She screams, rolls on the floor, sticks out her tongue, turns up her nose, and takes it out in making up all manner of horrid faces.

14. Eng., F., 28. Children I have observed stand perfectly still, open the mouth wide, and begin to scream. Later they dance wildly, brandish the arms and hit anybody. Others lie on the floor and roll, pound their heads, roar, sit and rock; others bite and scratch; tears are a sign that the repentant mood has begun to react.

15. F., 19. Some children I have seen turn white or red, howl, strike blindly. Boys control their feelings far less. A little boy lay in the mud and screamed because I would not buy him candy. I had to pick him up and carry him home yelling.

16. F., 41. A little girl in a pet first seems pleased with herself and looks to her companions for admiration. She shakes herself, settles into stolid sulks, which sometimes last two days, then cries, re-lents, and is extra good.

17. Two little boys were set down to write, but there was only one pencil, which was given to the elder. The younger flushed, flashed, and said "Do you fink I can write wid my finger like God?"

18. F., 31. A little girl constitutionally obstinate, when in a temper would grow red as a turkey cock about face and neck, which would seem to swell with anger. Her eyes filled with tears, but she never cried. She readily asked forgiveness and never bore ill will. When people are slow, she wriggles, writhes, bites her lips, snatches your work, and wants to do it herself.

19. A girl of 6, who has ambition as her ruling passion, is most enraged by her jealousy. If she is excelled in writing, she will try to sponge out the work of others, and to scratch them, lie down in the grass and kick and cry, because she cannot jump as high as her mates.

20. M., 28. My temper was so dreadful that I did not mind what it cost, it must have way. As a child I would scream, kick, rush at things and throw objects in the fire or out of doors, if my plans were frustrated. To put me to bed disturbed the whole house, so that my nurse usually gave way to me. Every point I scored made me worse, I was often wild and utterly unreasonable.

21. F., 19. A sweet little girl of 6 I know has outbreaks of passion, that seem to pass beyond control, when she stands and howls quite unconscious of everything. When it is all over she often cannot recall the cause of her temper. The only thing that helped her was diversion or some soothing action, like stroking her hand. When it is all over she seems to have forgotten both it and the cause.

22. F., 28. When I am inwardly impelled to say unpleasant things to people, I tremble, am short of breath, my teeth chatter, and often have a pain in my stomach, which causes sudden diarrhœa.

23. M., 28. When angry for sometime I twitch painfully in the palm of my left hand and also in the veins of my left wrist. In both these instances the pain is very much like the shock from a strong battery. It seems as if the blood was trying to get out of the small vessels causing them to stretch and snap back with violence.

24. Eng., F., 27. I know a child who has fearful fits of temper, after which a rash breaks out all over her body. Once she rushed into a tub of cold water with all her clothes on.

25. F., 19. When angry with the cat I used to squeeze it tight,

pull its tail, stroke it the wrong way, put my finger in its eye, and through childhood my anger generally vented itself by hugging.

26. F., 22. I literally boil. The angrier I am, the more compressed and internal it gets and the more silent I become. If I speak, I cry. My intellect is confused or rather does not move under the pressure put upon it. If I thoroughly start crying, the fit wears itself out, but if the cause requires action, I can stop crying. The effort to liberate sets my mind flying.

27. F., 23. When I am angry I feel as if a demon was inside me tearing me to pieces, and if it must come out before I can be happy. Commonly it is vented in vicious little speeches, and deeds, aimed not particularly at the object which caused it, but at every one and everything. I take a sort of pleasing misery in contemplating the pain I inflict.

28. F., 29. Some children are white with rage, but more are crimson. They pinch, bite, scratch, and stiffen themselves. One little girl is so rigid that she can be picked up by her waistband, and held perfectly horizontal in the air. The sulky kind that hold temper is the worst.

29. M., 34. Symptoms of anger as I have seen them suggest the etymology of the word, which means compression of the neck, strangling, etc. This expresses my experience of it better than the words, spleen, vexation, ire, wrath, rage, resentment, malice, hate, indignation or any others.

30. I know people who change color, contort the face and even body. The hands clench, the muscles stiffen, the eyes flash and flame, the voice changes its pitch, time and quality. Some strut and other children dance, fall, butt, etc.

III. ANGER AT INANIMATE AND INSENTIENT OBJECTS. VENTS.

Every one is familiar with the disposition to kick the stone against which one inadvertently stubbed a toe, to pound or even kick a door against which we have hit the head between our groping hands in the dark, and our returns abound in cases of pens angrily broken because they would not write, brushes and pencils thrown that did not work well, buttonholes and clothes torn, mirrors smashed, slates broken, paper crushed, toys destroyed, knives, shoes, books thrown or injured, etc. These violent reactions by which often the individual is himself injured, and in several cases seriously, occur not only in children but in adult and cultivated men and women. A man finding that the blossoms of a favorite and much nurtured pear tree were blasted for the third time, hacked it and barked it in a fit of rage, until it had to be cut down. A man of over forty fell over a roll of barbed wire at night, and the next day threw the whole into a bonfire and dumped it in a fish pond with much satisfaction. A farmer laying a stone wall found the stones so round and smooth, that they slipped down several times, and in a fit of anger, as he says, and not to split them into better shapes, he mauled them till he was tired with a sledge hammer. In one case described at length, a young car-

penter injured many times and even spoiled his own expensive tools, because he was so clumsy and inexpert that they would not work right; and the destruction of one's own or others' property by this impulse is frequently recorded. A few cases are appended.

1. F., 20. When a door will not stay latched, my little brother of 6 bangs it very hard several times, sometimes kicks, strikes, and even butts it.

2. F., 19. Boy of 4 grew often angry with his blocks, kicked and threw them, saying every time "Take that and that."

3. M., 19. I once fell on a large stone and hurt myself badly and vowed I would smash that stone sometime. Some weeks passed before I got a stone hammer, broke it to pieces, and threw the fragments in a fire.

4. M., 25. If when cracking nuts or driving a nail, I hurt my finger, I am so mad I have to smash something instantly with the hammer. Once my boot, which had been wet over night, was so stiff in the morning I could not get it on. In rage I pounded it well with my hammer.

5. M., 9. Pinched his finger in the door. Cried a while, then stopped and kicked the door, hurt his foot, cried again, kicked it again less intensely, scolded it and dared it to hurt him again.

6. F., 20. My brother M., 5, became angry with his drum and broke it into pieces. He fell on his rubber skates aged 7 and broke them both.

7. F., 18. I have vented anger on nearly all my toys, and could not keep them long if they were destructible. When angry I often drum with my fingers, tap my feet or if alone pound and stamp around.

8. F., 16. If I cannot play my exercises right, I pound the keys. If my sums go wrong, I throw and sometimes break my slate. I have torn books, cloth that I could not cut right, and smashed wood and sometimes bang the tools in the manual training room.

9. M., 17. When I could not learn something in my lessons, I used to sling the book across the room. My toys have suffered a good deal.

10. A boy of 8 cut himself with a knife, threw it in rage against a stone, and finally broke it with another.

11. A boy of 4 hits every large object against which he hurts himself, and throws all smaller ones.

12. M., 28. As a boy if I spoiled what I was whittling, I would throw or smash it if I could.

13. M., 18. When I used to bump my head, I wished with all my soul that I could make the thing I hit suffer for it.

14. F., 19. When angry I used to kick rocking chairs. This made them rock and this made me more angry, because they seemed alive.

Such things are often done with a kind of lurking, nascent self pity, sometimes with a trace of self contempt, but more often with a bottom feeling of the humorous absurdity of it all. Where pain is caused, such reactions serve as a vent, but on the whole we seem to have here a momentary lapse back to a primitive animistic stage of psychic evolution in which the distinction between the things that have life and feeling and those that lack both was not established. At any rate our organism acts as if the offending brick, stubble or tool was capable

of feeling the effect of our resentment. This very strange group of phenomena can only be partially explained by urging that most causes of pain are animate objects, and that it is a second thought or long circuit reflection that does not have time to act, that this particular cause is lifeless; while the preponderance of the direct vent upon the object, as well as introspection in such cases, shows that it is not a case of stimulus and undirected reaction.

Vents. Besides the direct action upon the cause of the offence, very many indirect ways of working off anger are common, and this is often the beginning of control.

1. M., 24. Biting my lips until they ache and bleed is far more effective as a restraint for me than the puerile method of counting ten. Music helps me and if I can get at a piano, I can play off my rage. My aunt knits off her temper, and a cousin always plays Schumann's *Schlummerlied*, so that when we hear that we know she is angry, but will soon be pleasant. If a piano is not at hand, she suffers greatly.

2. F., Once I was so angry that I could not sleep until I got up, wrote the person a most violent letter, venting all my rage, and then tearing it up in the middle of the night. Then I went back to bed and slept sweetly. Girls, I think, are more angry, stay so longer, and do not forgive an injury as soon as boys. This is particularly true of girls from 12 to 15.

3. F., 24. I am reputed good tempered, but this is false, for I can fume and seethe within, when outwardly I am perfectly calm. I have a habit of giving inner vent to my anger by thinking cutting remarks; this relieves me, while the object of my indignation never suspects it.

4. F., 22. When my feelings are injured, I have now learned to be able to turn aside to something else. I cannot always do it, but this checks most outbreaks. I can often hold myself to my study.

5. M., 31. A cultivated lady of 25, wife of a well-known university professor, is sometimes so angry that she goes into the back shed and chops wood furiously, and says that something far worse would happen if she was denied this vent.

6. F., 23. When angry I used to pick up stones and throw them at something hard. The throwing relieved me some, but if they broke, the relief was much greater.

7. F., 9. Vents anger upon her hat and particularly her coat. Has sometimes broken things on the table in a pet, and in her tantrums is liable to seize almost anything anywhere.

8. F., 19. My youngest sister gets maddest if she cannot find things. She always pounds something. Her motto seems to be "Pound if not found."

9. F., 27. When I have been very angry I have just stood and pinched myself and bit my finger until I screamed. I used to want to tear something.

10. F., 16. When I am very angry or feel it coming on, I want to run to a particular place and pound the tin gutters for relief.

11. M., 10. Used always if possible to vent his anger upon stones; F., 7, on doors; M., 11, on bees.

12. F., 18. My anger is generally vented on my clothes. I go up stairs into my room and sling them around and sometimes dance on them.

13. American; Adult; Female. When violently angry would grind

her teeth, walk back and forth between two rooms so as to slam the door. Sometimes she would take a pillow and shake it until exhausted.

14. I always used to fly to the piano, or get my pet kitten to comfort me when I found my temper rising.

15. M., 26. I know a woman with a bad temper who when exasperated plays the piano or sings to herself, which latter is considered by her friends as a danger signal.

16. F., 28. When I was a girl and got angry, I used to shake my hair all over my face and make wry faces. It was very easy for me to speak out and tell very disagreeable truths. When trying hard not to talk, I play scales; and when very angry, octaves. To repress rage makes it far worse than to blurt it out.

17. I know a child who always relieves her ill temper by kicking a particular post. Her eyes are half shut and afterwards she shakes.

18. A nervous boy of 8 several times a day gets so angry he throws himself on the ground and screams as if he were being killed. He is growing thin and I think his temper will wear him out.

19. F., 27. For three years I had a pupil, nice in many ways, but addicted sometimes to say things quietly that nearly drove me mad. I always restrained myself, but once found that I had broken a new pencil that I had in my hand short off in my efforts to control.

20. M., 27. When slightly angry I can best let off my feelings harmlessly by swearing. If madder I feel like knocking out part of my wrath, and make awful vows of vengeance which I do not live up to.

21. F., 32. I can now generally control my naturally strong temper. I think volumes, but say nothing. It would be a luxury to wreak myself upon expression, but I refrain from prudential reasons. I know people would pay me back. I try to feel benevolently towards all, to make allowances when I feel injustice, to switch off my anger into a sort of philosophical indifference. Sometimes I get relief by working it off in an imaginary scene with the offender. My opponent says severe things and I answer still more severely, but always go off complete victor. This appeases rage, although I inwardly laugh at and despise myself, while giving this triumphant scene. I have invented an instrument of slight torture which I apply to myself, but which I shall not tell. It has helped me much. A plain two minute talk once by my older brother helped me.

22. F., 44. I get some relief occasionally by prancing about and ejaculating, especially if my heart thumps and my head aches too much. Sometimes I write a letter or even an essay on the subject, and then put it into the waste paper basket, and it has served its purpose of giving outward expression to inner wrath. If all anger has to be checked and I have to attend to conventionality, I sometimes have one of my fainting spells.

A man I know saws and chops wood in the cellar, some pound stones, children break toys, pinch themselves pound their own heads, bite their fingers, one child jumps into cold water, some tear their clothes, one must tear something, anything, one pounds the gutter pipe, another shakes a pillow, one bites a coin, several play the piano, one kicks a post, one pulls her hair over her face, some sing, take it out in imagining extreme retaliations, in inventing instruments of torture, in imaginary dialogues, fights, or other scenes in which the opponent is put at a great disadvantage. Profanity is a very common

vent, and many people have curious forms of expression, some comic, while in others it is simply round, honest swearing never heard at any other time. Scathing remarks are shouted, whispered, or perhaps merely thought. Some mutter, others walk it off, etc. This varies all the way from slight divergence from the object to something connected with it by some law of association or even utterly unrelated to almost inversion, as where excessive kindness or politeness to the enemy is the only effect observed. In some cases certain automatic movements like tapping, rocking, etc., sewer off the tension harmlessly. Just how far the pent-up energy of anger can be metamorphosed from malignant to benignant work is an interesting and practical problem for pedagogy, as well as for psychology. If education could transmute and utilize for good this great power, turning the wrath of man to praise, a great service would be done. The fact that some vents tend to become stereotyped and almost like a kind of ritual of rage suggests much plasticity, while the general fact that plenty of exercise and work, physical or even mental, provided it be not excessive, directly tends to lessen irascibility is full of suggestion in this respect.

Vents are resultants of two impulses more or less contradictory, one to react directly against the offending object and the other to struggle to inhibit that reaction. The consequence is increased psycho-physic tension and diversion to another point of escape, as a horse paws if it cannot go. Complete control would not be suppression, but arrest of all forms of expression for the rising pressure. Allbut thinks that what he calls tension, somewhat in this sense, is one of the chief psychometric criterions by which to measure both sanity and brain power. To check all vents of strong indignation would be, according to the current theories of the physical basis of emotion, to annihilate it, for if these are correct rage cannot exist without at least heightened tonicity and blood pressure, etc. These latter then, if necessary concomitants, are not vents, and control would be conceived as restricting it to these more involuntary tensions and preventing overt acts.

Change with Age. While infants scream, stiffen, hold the breath, strike, scratch themselves, chatter, kick, sob, throw, roll, etc., age almost always brings repression of these manifestations and increased control. The adult, instead of being impudent, may become sarcastic; instead of dancing up and down, may walk with heavy tread to and fro; instead of shouting, may talk to himself and use his tongue instead of fists; and while peevishness and irritability are less, remorse, reason, reflection, toleration of offences become dominant. As the mind grows there is more space for subjective expenditure of energy, and to think unutterable things that are not uttered

or to put into words the rising tide of indignation. It takes longer for an attack to reach its apex and it subsides more gradually; the effects are often less in the somatic and more in the psychic sphere; while the fact that the home, school, church and state repress by their various rules and methods the grosser manifestations of wrath, tend to make it rise to forms of expression that are more sanctioned because more refined. Conscience in some becomes a helpful deterrent, which is reinforced by religion. Physical causes are less frequent, while a larger area is exposed to psychic causes, and while capacity for anger often grows with strength and years, its frequency is generally greatly diminished. At adolescence it especially becomes more inward, while a new set of causes becomes operative. In old age temper may become serene and sweet, but if otherwise, anger grows impotent and often contemptible in its manifestations as its characteristic expressions become more limited and stereotyped. Middle life is the period when, if once thoroughly aroused, it can be most destructive, not only physically but in the world of worths. But this is the age of most intense preoccupation, most exhausting work for body and mind, hence on the whole, because other interests are so absorbing, of greatest immunity. A certain choleric vein gives zest and force to all acts, and increased manifestation of temper is one of the signs of weak wills and decaying intellectual powers.

1. M., 19. I used to abandon myself to anger, but since the age of 14 I have lived in circumstances which absolutely require self-control. I have grown to philosophize more before letting go, and can sometimes stop long enough to reflect whether I am really right or wrong. The dominant thought is the effect of the acts. As a child I used to feel that I could not act or squeal loud enough, and often wanted to kill the offender. Temper, I think, first shows itself in acts and then in words.

2. F., 31. As a child I must have been a perfect spitfire and would fight, kick and strike like a little animal, and must have been as soulless as Undine. Another little girl as bad as I fought with me, and we sometimes tore each other's hair for ten minutes. I usually came off with a great deal of triumph. About 11, chiefly under the influence of an older girl, I began to unfold a little heart and soul, and to realize that life was a little more than self-feeling and self-pleasing, when my childish temper quite disappeared.

3. F., 20. In the morning before I am fully awake, my temper is most ticklish. I am slow, but when thwarted and fully roused I am so transported with rage that I can neither move nor speak. If I can strike or throw something, my feelings are relieved as if a thunderstorm cleared the air. I end with passionate crying. Now, when I am beginning to feel these inner convulsions, I can control them better, and my remorse afterwards is deeper than it was in childhood.

4. F., 21. I find it unexpectedly hard to analyze my temper. It is bad, and I fight it constantly. When I feel myself going, I have forced myself to read of the crucifixion of Christ. At first I was unmoved, but soon tears came and I was all right. The old feeling of

fighting myself, as real as if with fists, has passed away. As a child I used to roll, to kick, and once bit my tongue. I now talk into myself. I still have the feeling that we have a right to stand up sometimes on our dignity, but still know that we should have more love and trust toward our fellow beings. I have a real sense of union with unseen powers and try to feel a oneness with the human race; and when I can, this helps me greatly.

5. F. I have diligently cultivated my natural bad temper, so as to give it the hasty, fiery form instead of the sulky one.

6. F., 21. I think I take offence quicker, but control it easier than when young. I feel temper to be childish and due to a slow, weak will.

7. F., 21. My temper has changed little since childhood. Perhaps it was then quicker and for different reasons, but not getting what I wanted has always been the chief provocative.

8. F., 22. From 12 to 16 my temper was so bad that my mother was in despair. Now the worst outbreaks have about ceased.

9. M. My temper is greatly improved since childhood. I am still quick to wrath, but it does not last. Small things trouble me most.

10. M., 18. Now I can control my fists, but not my tongue. When I do make a few remarks, I generally have the best of it. Father says I shall have to be knocked down a few times before I know enough to shut up.

11. M., 27. My disposition to passion has grown less because of a more favorable milieu.

12. F., 30. My anger confession is that when a child I slammed doors, made faces, was impudent; while now temper makes me irritable and, alas, that I must confess it, I scold.

13. F., 26. When small I would throw myself down; later clench my fists and stamp. Am far better tempered than I was, for much that once angered me does so no more. I have gained control over words and acts and feelings, and now can foresee causes of anger and thus avoid them.

14. F. My temper as a woman is so changed from that of childhood that they seem to belong to two different beings. Once explosive, I am now more morbid, peevish, and irritable. I believe it is because my life has been so unsuccessful.

15. F. As a child I rarely got into a violent rage with others of my own age, and think the reason was that I always spoke or struck out at once, and thus relieved my feelings before they had time to gather full force. With my superiors, however, fear kept my anger down until it would grow to an outburst. I always ran to an empty room, banged the door, raged and sobbed till I was tired out. Now, instead of crying, I clench my teeth and drive the nails into the palms; my heart beats so fast that I feel choked and my head seems as though it would split.

16. F., 29. I am less passionate than when younger, because I consider all sides and realize how easily people misjudge; try to be charitable, and think those with unpleasant or selfish ways worthier of pity than of blame. I want to help people struggle against their weak nerves, for I have my own.

IV. REACTION.

When the spasm or crisis of anger is passed, it leaves the system exhausted in exact proportion to the violence of the attack, and inversely as the strength of the victim. Many are faint, cold, tremble, feel weak, perhaps drop down

almost in a collapse of fatigue, and with symptoms of prostration. They have headaches, nausea, bilious attacks, tears, general mental confusion, restlessness, depression, a sense of growing old, perspiration. Many of these physical symptoms are direct reactions from an over-expenditure of energy. There are often peculiar and individual sensations, like bad odors, tastes, ringing in the ears, optical symptoms, prickling and twitching, palpitation.

The psychic reactions most frequent are mortification of having appeared at great disadvantage, humiliation for having showed low level and perhaps bestial traits, a sense of shame for lack of control, poignant regret, self pity, qualms of conscience for having broken through resolutions or other forms of restraint, renewed resolves for the future, etc.

In some cases, along with this, and still more rarely predominating over them, is a pleased sense of exaltation arising largely from the natural exhilaration due to an increased sense of vitality and probably from a sense that justice has been done, judgment executed, the truth spoken, the basis for new and better understanding laid, etc. In this case there is no question of regret or contrition unless for the physical results. Here belong some of those cases who profess to have never felt a sense of guilt, however strong the outbreak. This in some cases is due to the concurrence of emotional strength with intellectual weakness, which prevents forever complete reaction to a normal state. Some souls tend to remain with reference to the offending cases where the last wave of passion left them, and although a friendship has been broken forever, justify themselves. This occurs either where mental elasticity is less, or the power to cherish grudges greater, than normal.

Yet another type rushes precipitately to the opposite extreme of self humiliation and abasement. They are abject in apologies, take over much blame upon themselves, make it a virtue to claim more than their share of the fault, and pour out their souls in superlatives of confessional self immolation and pleas for precipitate forgiveness.

Another better poised type shuns all ostentatious reversion, and though perhaps feeling that they have been a bit brutish and treasuring the lessons of regret and even remorse, from disposition or conviction, never ask pardon but quietly ignore the outbreaks, are perhaps a little over sweet, but feeling that least said is soonest mended, glide back without a word to old relations. This steadier type does not usually go quite to extremes of manifesting temper, and this mode of atonement is no doubt on the whole sanest in some cases.

In some the reaction is chiefly moral and religious, and prayer

and other spiritual exercises, together with those of conscience, play a prominent reactionary role.

Some are able to react into a sense of the humor and ridiculousness of it all. Instead of being bestial, vile, undignified, disgraceful or unhealthy, it is simply preposterous and absurd; and the penalties of ridicule and caricature self inflicted may become habitual, and very efficient as a means of restraint.

1. Irish, F., 27. I tremble all over sometimes for an hour when a temper fit is passed.

2. F., 21. When it is over, I am exhausted and cold and tearful.

3. M., 18. When reacting from a bad mad I cry, regular sobs choking me all over, although tears are less plentiful.

4. M., 31. A violent outbreak leaves me worn out in body and mind. I am strong and healthy, but after my last could hardly stand, and I felt as if I had grown older, sadder and changed.

5. F., 22. When the passion is spent, then comes the weeping fit, and then great prostration.

6. F., 22. After I have broken out badly, I am tired and restless for days. My mind whirls on its own way and takes in nothing.

7. F., 41. After a mad fit, I am pale and faint, my hands tremble so that I cannot use them and I have to sit or even lie down from sheer relaxation.

8. F., 31. Anger makes me feel worn out but peaceful. I am often frightened that I can get so angry, and often have a nervous headache later.

9. I am usually thought to be good tempered. The reason is that it takes the form of a sort of muddled wretchedness, which I can usually save up till night and fight out alone. I am always left weak physically, but mentally better.

10. M., 18. I once almost killed a tyrant boy in our school, who bullied, but did not feel half as bad as after whipping my horse. When I had done so, I would cry for an hour with my arms around its neck.

11. F., 33. I know a girl of 13 who whines, scolds and is cross all day and the next day she is abed with a bilious attack. These alarm her, and she is trying to control herself.

12. F. When a spell of rage had worn itself out, I always reflected that I would be out of favor and get no petting. Until 10 I had no other regret and did not know it was wrong. I remember vividly when first told it was a fault, and when I tried to stop I was corrected by being sent to a corner, and sobbed violently. Few things I ever did were harder than when I made myself pick up a book I had flung down, and go on with the interrupted lesson. I often try novel reading with success. Am very sympathetic with ill-tempered people.

13. F., 40. I react by feeling that I have been a brute, try to meet my enemy as if nothing had happened, think it rarely wise to apologize, on the principle "least said, soonest mended."

14. F., 17. I am generally very contrite and want to make up by taking more of my share of the fault, and find that sometimes prayer helps.

15. F., 21. Although in anger I feel very bitter and full of burning hate toward all mankind, my reaction is intense remorse, though I never speak of it.

16. F., 26. My feeling afterward is a misery too great to speak of or even write. I know it a most dreadful sin, and remorse is deeper in proportion as the object was dearly loved.

17. F., 24. When I give way to uncalled for or long cherished anger, I feel sore and angry at myself, afterwards realizing how horrid I am and how much sweeter others are. I rarely, however, think much about anger after it is all over.

18. F., 20. My reaction is shame, seeing the other side, difficulty in speaking to the person in a natural tone of voice, realizing how small the cause was and feel that I have been a great silly. It makes me wretched that I cannot take things more calmly.

19. F., 19. It is far harder to express contrition in words than in acts, and yet if others do not apologize, my liking for them cools in spite of myself.

20. F., 28. A storm that has long smouldered in me rages on often for a long time, especially if my sister, usually its cause, is thoroughly and at once subdued. I feel humiliated in my own eyes because I have failed in what I have most desired, namely, control.

21. F., 38. I easily forget causes of anger, but never the feeling, and my constant dread is lest I shall be stirred up anew.

22. F., 21. When I think it over afterwards and see how foolish it was, I see that I must forgive as I would be forgiven and resolve to be more sensible next time, but alas!

23. F., 24. My reaction is never referring or thinking of it, or perhaps saying I did not mean to hit or being a little more affectionate than usual, amending by extra docility and sweetness with much inward disgust with myself. Sometimes I overwhelm the object of my anger with kindness.

24. F., 20. My contrition is not very deep and I detest reconciliation scenes, but glide back to normal relations without a word. To say I am reconciled, before I feel quite so, helps.

25. F., 21. At the highest pitch of frenzy, I do not care what I say or do, only striving to make it the worse, but later my remorse is awful and aggravated by punishment from parents. At these periods all my wrong deeds, especially those known to my own self, would rise up and I would resolve to confess to my father. I never came to the point of doing so, because I feared the knowledge of them would break his heart and usually ended by resolving to wait until he was on his death bed.

V. CONTROL.

Some children grow on towards maturity with no instruction that it is well to control anger and feel that not to fight on every provocation is a sign of cowardice. These cases are very rare, and experience soon teaches every child the necessity of some restraint. The simplest method is to command the voice, to speak slow, low, after a pause, and with steady and, if possible, kindly tones. Another is to relax in the jaws, arms and elsewhere the instinctive muscle tension and to undo, step by step, the attitudes and facial expressions after first restraining acts. The mirror sometimes makes a sudden revelation of ugliness that is a great aid. Repulsive and extreme exhibitions of anger in others prompt good resolves by way of warning, as do examples of great control by emulation. If one can assume even approximately the muscular expressions of the opposite state, anger cannot long persist; for its nature is very closely bound up with tensions, not all of which, how-

ever, are under control of the will. That effort in this direction is of very great psychic and pedagogic value there can be no doubt. This we may call, perhaps, the most direct way of control.

Next comes the presence of others, especially those who are respected, loved or not very well known. To have made an exhibition of temper before a stranger is so mortifying as to usually reinforce all the instincts of control. Some confess to having a very ugly or even dangerous temper, but declare that no person has ever seen its malignity. In other cases, persons with a reputation of good and even sweet tempers among their friends give way in the presence of one or two members of their own household to the vilest and ugliest outbreaks. In some families irascible children get on far better away from home, not only because their tempers are less likely to be spoiled by indulgence, but because of the constant pressure of restraint by the presence of those who do not know them well.

With the inflammable type, counting three, ten, turning around, any act or formula securing a little delay allows the slower acting powers of control to be heard from. Some temperaments can thus almost entirely burn the smoke of their own anger calentes, and for the flashy, petulant type of diathesis this alone may sometimes quite suffice.

Reflection of a moral or religious sort becomes more effective as maturity is approached. The repetition of a Bible text or some proverb not only secures delay, but brings in antagonistic motives. Recalling the compunction of conscience, the necessary acts and words of atonement, bringing in a vivid sense of divine watchfulness, the beauty of love and service even to enemies, remembering that they may have as much cause for anger as we. Sometimes ceremonies or prayerful exercises are effective.

Diversion is a great and most effective panacea. If the mind can be occupied with something else at once that absorbs it and prevents brooding, it soon glides imperceptibly into good nature and comes back to the standpoint from which offences can be regarded with equanimity.

By some or all of these methods, some bring themselves to a habitude of displaying and soon to feeling special kindness to those who injure them, although few learn to turn the other cheek to the smiter. Indeed, current ethical standards, even in the best people, hardly justify a literal fulfillment of this Christian prescript. Literature furnishes a few examples of ascetic ideals, according to which imperturbability is almost in a metamorphical and even literal sense, as if thus supererogatory merit were accumulated or treasure laid up in heaven. A young convert at Orchard Beach once told the writer that he

never knew such joy as when he was buffeted and insulted in his work of soul saving, and always indulged in ejaculatory thanks to God when he was cursed, struck, pelted with mud, snow or otherwise foully treated as a result of the crude methods of slum work to which his zeal had impelled him. The ethics of this frame of mind may well be doubted, and the world admires the Quaker, who at a certain point of provocation, lays aside his gray and his creed to drub an aggressor.

1. F., 18. I check rage by asking, is it right?—and try to weigh the facts. Since I was 14 I have realized how wrong anger is and can generally control it. It is very violent, but people do not know my struggles to curb it. Above all things, I hate scenes. All our family are irritable and nervous, and we have to steady ourselves. We all get on better when away from home. I sometimes try to think of all the times my enemies have been nice to me.

2. F. If I give way to my temper, I soon feel well and in love with the world and with every one in it again; but if restraint succeeds, I am miserable, overcome, want solitude, and feel that a heavy weight is hanging over me, or like a smothered volcano liable to burst forth.

3. F., 30. I have but once or twice in my life let myself go, and then went off like a whirlwind and stopped when I was ready. I almost never lose control. To restrain general irritability is far harder.

4. F., 15. A lot of girls last winter turned on me, threw snow and called me names. I wanted to pay them back, but something told me not to. I felt as if it were some one talking right to me. The girls said I was a coward, but still I did not hit them. The Bible, you know, says forget and forgive.

5. F., 40. If one I love angers me, I am simply benumbed. Bitter speeches, which I know would rankle, occur, but are never uttered. Between love and this assertion of my words, self-conflict is short, sharp, and generally results in perfect silence. I have noticed that I tap my foot and often open and shut my hands and perhaps my teeth.

6. F., 24. My temper has grown more tolerant of late, for I can sometimes check it by reflecting that others may know better, may be right, or have a right to their own opinion, that it is useless to strive or will be all the same a month or 100 years hence.

7. F., 28. I find it hard to think before I speak or to control my words, but I try to turn my thoughts to something pleasant. If I have the chance to do a person with whom I have been angry a good turn, and if I do it, which is not always the case, then all self feelings go. If my enemy makes advances by doing me a good turn, the anger goes, but then I feel remorse.

8. M., 32. To aid children in self-control, they should be taught command of the voice and hands, attitudes, and awards and punishments should be meted out with great delicacy and tact.

9. F., 22. I find some help by holding my face in my hands and smothering my screams, but must be alone where I can gesticulate and act out a little.

10. M., 27. When angry I am in a state of miserable tension all over. I feel it first about the head, in the temples and forehead. I am conscious of unwonted secretions in the stomach. I can lately help myself a little by forcing my attention to the drawn muscles and relaxing them. This makes me at least a little calmer.

11. F., 28. Control of anger I think comes largely from imitation. If children see others check rage, they learn to do so.

12. F., 19. Once I chanced to look in the glass when I was angry, and I did look so perversely ugly, that I now think twice before letting go. My face gets broad, heavy, babyish, the corners of my mouth go down and I frown awfully.

13. F., 27. Once my favorite uncle dropped into the nursery and found me on the floor kicking and screaming. He was shocked and said I looked more like a beast than a little girl. I was so ashamed that it cured me entirely.

14. F., 20. The more strangers are about, the less my irritability troubles me. Their presence is the best control. I am far worse at home. When vexed I try hard to think of something else or say to myself how much better it is to control myself or recall possible outbreaks.

15. M., 50. A murderer, awaiting sentence for crime done in a flash of anger, whom I know, told me he always carried a stick in his pocket to chew when in a rage to prevent such an outbreak as that he was to die for. When the fatal provocation came, the stick was lost, and could he have readily found a substitute, he is sure he would have done no harm.

16. I rarely felt guilty for rage and perhaps did not use to recognize my feelings as anger. There was no such self-condemnation as when I had lied. I did not apply Bible sayings about my anger to myself. As I showed anger chiefly to brothers and sisters next me in age, no adult knew how bad my temper was except the governess, who was the only one who ever spoke to me of the wickedness of anger.

Abandon. In really rare cases, there is either no power of control whatever, or else what power there is can be easily broken down, so that the individual is entirely at the mercy of his anger. If this is great, he becomes literally insane or infuriated, like animals suffering from rabies. This is sometimes seen in idiots, degenerates, imbeciles and other defectives. All fear of persons, punishment and other consequences is lost, and the individual is absolutely helpless and blind in the storm of rage. In excessive and prolonged provocation, when man is brought to bay and knows his case to be hopeless, and that he can only sell his life dearly as possible, a somewhat similar condition supervenes. This is not courage but fury, and the destructive impulse may be so strong as not to stop at any manifestation of suffering, danger, or even death to the victim, but may impel to nameless mutilations of corpses and the impulse to annihilate even self and others in the highest pitch of frenzy. Boys, who easily and really become blind mad, are usually defective or morally insane, and all extreme manifestations are generally restrained before strength or knowledge enough is acquired to make them dangerous, or they become amokers. p. 521.

1. M., 40. My boy striked when angry never quite straight, chooses a safe place like the shoulder and often with pounding down blows. Girls I have noticed are more likely to strike down. A lady I know when very angry speaks with the sweetest face and voice. Her manner is more charming than at any other time, but the things she says sting bitterly.

2. M., 29. Up to 9 or 10 my brother was so passionate as to be almost dangerous, and no punishment or disgrace affected him. He would strike wildly without aiming his blows; has thrown stools, hammer, stones and various things at me. We all used to be terrified and I used to knock him down and sit on him till he was quiet, unless some came to the rescue.

3. F., 38. I have a strong and secret dread lest anything should excite my anger. It is dreadful and I am always in hopes nothing will occur to rouse it. I fear it like physical pain. It is mental pain which I believe leaves a scar.

4. M., 30. The mother of a 14 year old boy had always vented much anger upon him, when one day for the first time in his life, he broke out with an awful volume of oaths, which paralyzed his parents and made them feel that he must be very carefully dealt with or he would be dangerous. It was, however, all game which he had put up deliberately and over which he chuckled.

5. My boy of 8 is passing through an irritable period connected, I think, with second dentition. He flies into a fury, throws, strikes, says he is crazy, and his body feels drawn up. I can see, however, that he has sense enough left to avoid doing the worst. His father, who is very nervous, believes in using the whip in extreme cases. This makes the boy pale, cold in his extremities, and nauseated. His older half sister is aggressive with him, so that his provocations are strong and frequent.

VI. TREATMENT.

Worst of all is humoring and the over-indulgence by which too fond parents are prone to spoil the temper of only or sickly children by excessive indulgence. Even good dispositions degenerate to moroseness under this regimen and a vigorous application of Dr. Spankster's tonic in such cases may work wondrous and sudden cures.

For strong, healthy children, whose will is not absolutely diseased by balkiness, whipping, if judiciously administered, greatly reinforces the power of self control. With young children it must often be a blow on the instant and without a word of warning or moralizing, and if there is a little instinctive indignation, it is all the better; and if not felt anger should often be simulated by the parent or teacher. This gives a quick sense of the natural abhorrence with which such conduct is regarded and teaches the child limitations beyond which its conduct becomes outrageous to others. Dermal pain, which is not so bad as sickly sentimentality regards it, thus comes to be associated with moral pain, both in self and others, where outbreaks occur.

Another effective method is neglect. By this the child is simply ignored, set aside from ordinary relations of intercourse, perhaps isolated as disagreeable, troublesome or sick, and thus comes to feel by their temporary loss what the ordinary relations of love, in which they live, really mean and are. It is let alone, treated with silence and affected indifference or even coolness or sadness. The social instincts are so strong

that the child soon wishes to kiss or make other signs of desired atonement, and to be taken back to the hearts of its friends as before. This method can be well developed and sustained, but with some has its own peculiar dangers and must not be carried too far.

Some are best helped by being left to the natural consequences of their acts. If they break their toys in a pet, they go without them. If they injure their clothes, bed, books, pets, they must be left to feel a sense of loss after the ruffled temper is calmed. If they litter the nursery or playground, they must slick it up, or if valuable things are endangered, they are taken away. If they treat others badly, their friendship is ostentatiously cooled. Thus they are made to anticipate the penalties of adult life.

In some, especially in small children and in those with a keen sense of humor, the risibilities may be appealed to, and the child provoked to laugh by diversion to funny acts, by caricaturing its own deeds, words, tones, appearance, and thus rage may be suddenly neutralized by its opposite.

Plain, straight talk is often effective. Sharp, incisive, graphic descriptions of their conduct, its effects, how it is regarded, its consequences when they are adult, often brings a realizing sense which increases their self-knowledge in most wholesome directions. No one can read these returns without pleading for judicious scolding, provided the time, occasion, person, etc., be well chosen. All languages are far fuller of words describing bad than those applied to good conduct, and these drastic expletives, thus at hand, should be made good use of. Perhaps it would be injudicious to advocate even a mild use of profanity as a mode of clenching or rebuking certain manifestations of temper, but surely if there is anything in the world that merits damnatory and diabolical terms, it is the extreme manifestations of rage.

In some cases I believe anger should be worked off by legitimate and regulated fighting. There are certain states of mind, sometimes provoked by certain offences, for which no ordinary modes of treatment are adequate; and to stand up squarely in a give and take conflict, whether with fists or with straight out pieces of one's mind to each other, teaches a wholesome sense of responsibility and also gives a hearty man-making type of courage. Every irascible boy at least should know how to box. Nothing is a better school of control than to face an equal in a fistic contest, and know that the least loss of temper involves a wild blow, a loss of guard, and a bloody nose or a black eye; while victory, other things being equal, is sure to rest with him who can take a stinging blow in the face or anywhere without losing his head and thus missing an opportunity.

Prophylactics should not be forgotten in cases that require special treatment. These are first of all good health, which always makes for serenity, active and sufficient exercise with regular work, absence of which is one of the surest modes by which anger material is accumulated. Primitive man had no regularity of meals, working hours or occupation, but days and weeks of idleness alternated with and prepared for by periods of excessive strain in hunting, migration, warfare, etc. Into such life rhythms, criminals and degenerates still tend to lapse, and a balanced regulation of income and expenditure of energy is the best palliative of every infirmity of disposition; congenial stated occupation acts especially as an alternative for those types of anger that tend to spontaneous monthly or otherwise recurrent explosions. Removal from irritating causes like relatives with similar types of sulks or irritability, teasing children, and a general atmosphere of kindness, affection, and freedom often work great changes.

1. F., 18. If riled I must be left by myself, for every attempt of others to soothe my ruffled feelings increases my irritation.

2. F., 19. No fear of punishment ever had the least deterrent or restraining influence. I always wished as a child, when angry, that I was grown up and could lay out the unjust person.

3. F., 20. A serious talk to me about my bad temper, when I was 16, helped me very much to both self knowledge and self control. My grandmother, who was very bad tempered, came to live with us a few years ago, and she was such an awful lesson of what I should grow to be at her age, that I improved.

4. F., 27. I think children should have it out with their rages, and that when the reaction comes, considerable reproof or punishment has its best effect. To remove causes of anger and find change of games, or playmates, to give diverting occupations and high ideals are best.

5. F., 23. I was allowed to lead in playing with other children. If they did not do as I said, I always declared that I would not play and, unfortunately for me, this soon brought them to terms. This hurt my temper.

6. F., 21. As a child I had few playmates, was much alone, and so rarely lost my temper. I had most things that I wanted and so had occupation enough to keep me from wanting much that I could not have.

7. F., As a mother of three children, whose father's family is full of nervous disease, I think perfect health the only cure of bad temper. The world is at best abnormal and civilization especially so. To make happiness a habit is to bring in the Kingdom of Heaven. If this can be evolved from a psychological laboratory, all hail to the laboratory.

8. M., 31. My mother once whipped me and then kneeled down and prayed for me. The latter made me more angry, only in a silent way, than the former. A moral lecture of being talked good to, or talked at, rarely fails with me.

9. Once F., 5, threw a favorite toy against a shelf. I put it up there for two weeks. She cast stolen glances at it daily. I also ask her, when in a pet, to say quietly, "He that ruleth his spirit is greater than he that taketh a city," and "A soft answer turneth away wrath."

10. A very sunny-tempered boy about twice a year had fits of uncontrollable rage, destroying everything within reach. These spells nearly ceased when he was about 9, but after one of them his nursery looked as if swept by a small cyclone. We never alluded to it, but let the litter lie until he took an impulse to clean it up.

11. My little brother, when in a passion, gets red, stamps, sticks to his will to the end, and, if spoken to, hits out in all directions. He is usually locked up, but the poor door suffers. When calmer, he is let out, but no notice is taken of him until a few days later, when he is spoken to seriously.

12. F., 34. My little 4-year old girl inherits considerable temper, and when she shows it I tell her she is sick or disagreeable, and to go away by herself. She soon comes back smiling and I tell her the sun is shining again.

13. F., 21. Sulkiness was my chief trait, but I suddenly and forever left it off when I was 12, when I went to live with my grandmother, who gave me a new treatment of simply ignoring me when I was sulky. She seemed to forget that I existed at such times and this made me miserable.

14. M., 28. A boy of 9 I know, when angry, used to have real spasms. The physician long treated him for extreme nervousness, but he grew no better. Another physician said it must be whipped out of him. His parents followed this instruction, and although he was very stubborn, peevish and fretful, it was whipped out of him and he never had another spasm.

15. M., 41. When my children were crying angry, I used to say, you can scream ten minutes longer, and they would have sufficient relief. Often watching the clock would divert them. Neither I nor the nurse ever say don't to our children.

16. F., 21. We can cause in M., 11, the worst fits of rage by making him laugh against his will. Punishment brings on a headache; with uniform kind and sympathetic treatment, all goes well.

17. My 10-year-old brother once cut me with a knife in rage. We learned, however, that if we cried out, you have hurt my sore corn, he would always melt to laughter, and would soon become penitent and ask pardon. His passion rarely left any trace after five minutes.

18. M., 42. Two children were very ill when they and the doctor said they must not be allowed to cry. Hence they were indulged till their tempers were spoiled. Any cross drives them into an ungovernable fury. They shriek and rave until exhausted. Their face is so changed that one would not know them, and they seem ready for any black deed. Curiously, if at the worst stage of their passion some funny word can catch their attention, they are calmed and laugh, and it all goes in a moment.

19. F., 27. At the age of 8 or 10 I fell into a state of feeling injured when everything said or done seemed aimed at me. This state recurred at intervals for many years and died out only when a great friendship and love came into my life. When I say stupid things, forget or remember too late, or plans have to be changed, I still am likely to look down, pout, stamp, be silent, etc. The sick are irritable brooding over their imagined wrongs, and self-conscious. The best way to cure this state is to break out suddenly with some funny remark or read a letter or something interesting, and it is amusing to see the change. Troubles are forgotten and happiness returns thus quickly, especially if several are together.

20. F., 24. Sometimes I can watch myself all through a tantrum, contemptuously, and perhaps laugh at my own excitement.

21. F., 22. When disagreeable and provoking things are said, I now try to laugh it off, and I find this very often succeeds.

22. F., 26. When other people are angry, it makes me calm; while if I am angry and they are calm, it makes me far more angry.

The Long During Forms. Instead of exploding, some children sulk for hours and days with little power to work it off otherwise than by making themselves miserable and diffusing an unpleasant atmosphere. This corroding state is both cause and effect of narrowed psychic range and easily grows into suspiciousness and may pass from the passive over into active and aggressive manifestations. It is hard to maintain this state without heightened self consciousness, which is prone to imagine slights, inuendoes, neglect, dislike, and may even fancy hostile schemes and plots. With a little morbid taint, suspicions of persecution may arise, especially in weak natures, and from this the passage to overt acts of vengeance has been admirably described by Magnan. Most sulkers and brooders, however, while good haters do not pass readily over to vengeance.

The law of retaliation, an eye for an eye, etc., is deeply seated in the human soul, and is closely connected with both the sense and with all the institutions of justice. Ancient and mediæval law was based upon the conception of injury for an injury, and elaborate tables of equivalents were developed. While courts now take the administration of graver matters of justice under their charge, much is still left to private settlement. In the scores of minor matters, we see in society this instinct of paying back in the same coin and which safeguards so much that is precious in life. Do others who do you, rather than the golden rule, is more germane for the natural and even for the twice born man.

Hate may be conceived as prolonged and more mentalized anger which may or may not express itself in overt acts. Usually it awaits occasion before it is heard from and it is often a strong factor in tests of popular suffrage, where those who believed themselves surrounded by friends find to their chagrin veins of disfavor where least expected.

Revenge seeks more than justice and would pay back with interest. It may be long cherished, even in the animal world, where grudges are harbored until there spite can be vented. Here we find long cherished and matured plans, the results of accumulated malice perhaps of months or years often involving calamities far beyond merit and not infrequently involving others in the doom of the victim. Among lists of infernal machines, slow poisoning, well schematized and insidious detraction, slander, libel, alienation of dearest friends, destruction of financial credit, moral or religious repute,—of all this literature, court records and individual observation abound. There are those

who can give the entire energy of their lives for long periods and even spend their treasure and take very grave risks to taste the sweets of vengeance upon an enemy. They are incapable of forgetting or forgiving, and their souls are soils in which all seeds of injury grow to preposterous dimensions. Such natures are constitutionally secretive, taciturn or cryptobiotic, and hug or nurse trifles sometimes purely imaginary until they fill the whole field of their mental vision. Had such souls the same creativeness in art, literature or good deeds, they would be great benefactors, but their passion is malevolence and destruction is far easier.

1. M., 27. A boy of 9 bore a long grudge against a shop keeper and for weeks sought an opportunity to smash his \$60 glass window. Pea blowers and small stones were often thrown and at last it was broken. The boy was glad, would not apologize and went to a reform school, although told that he would be released upon asking pardon. The worst children are those who harbor grudges and vent spite after a long interval, during which it seems to accumulate like compound interest.

2. M., 24. Boy of 12 saved his money and bought salt to put on the neighbor's lawn, and when asked why, gave a long list of mean things the neighbor had done to disturb his play. He said, "Now I am revenged, we are even, and I am happy."

3. M., 25. I know a man not of strong will but conceited, who is more discriminating and persevering in his revenge than in anything else. This he makes a holy thing and his chief object in life. He could wait for years to pay off his debts. He would even study the character of children, and relatives of his victims, to find the tender spot. Remorse he had none.

4. F., 21. In exceptional cases, as of insult, I recall and brood over every detail, holding long imaginary conversations with the person, giving her good chunks of my mind. In one case I kept doing this over and over, nursing my hate for two years. Then it suddenly went away, leaving only a half humorous contempt for the person. Even if anger fades, I never willingly have the slightest intercourse with such an one. I have always been thought to have an unforgiving character, and as a child, often did bodily harm.

5. F., 30. I know a woman who refused to speak to her husband or her daughter for a week, although living in the same house with them. She is glum, and thought all the time she was a paragon of virtue and controlled her temper because she did not speak.

6. F., 26. I believe in standing up for myself and in speaking with greater warmth and assurance of being right than I really feel sometimes. Years ago a friend spoke hotly to me and I coolly told her she was unjust. We agreed to part although I wanted to get right, but brooded over it for years. My subject of love was impaired by a sense of injury, but I have never been able to overcome it.

7. F., 30. A friend of mine is irritable, her spells lasting for days every month. She never smiles unless bitterly, contradicts everything. The world and all the inhabitants appear corrupt. Her lips are firmly set and her eyes are staring and freezing. This mood is followed by exaggerated mirth.

8. F., 18. When in temper I cannot be spoken to. I cherish a dislike, call up all previous misunderstandings, real or imaginary,

aggravate present case and make myself very wretched. I struggle to get out of these states but am more and more powerless to do so.

9. F., 42. When I was 16 a classmate lied to the teacher, saying she had helped me in an examination. I could not go to her without betraying the girl who told me, so I worked six months hard from sheer revenge, and got a higher grade certificate than hers at examination. This proved that she could not have helped me. All this time I could not say the forgiveness clause of the Lord's prayer, but she never knew I was angry.

10. F., 27. I would sulk if reproved and nurse my wrong, feeling that I was a martyr until I reached the point when I would weep. I would pout, refuse to smile, answer snappishly or not at all, and always strove to do the opposite of what was wanted.

11. M. I felt a certain triumph in sulking but do not then wish to be alone, as I do in anger. I imagine that the offender implores my pardon, which I take pleasure in refusing. Sometimes when I have sulked long enough and the person to whom I am sulking feels contrite, I sometimes wish I could force myself to the point of saying "forgive me," but I cannot.

12. M., 25. My father had terrible fits of anger, which occasionally went on for days during which he would be almost completely silent; while my mother, who is chiefly irritated by slowness as I am, is exceedingly voluble and loquacious when angry.

13. M., 25. If offended I often try to sulk in a very dignified way, but find it hard to keep this up long.

14. M., 31. My irritability, which I inherit from my father and which differs from strong passion, makes me feel as if I wanted to set everything and everybody around me flying, and then to be absolutely alone.

15. F., 32. I feel better if I can speak my mind. I have been so angry that I have felt I was possessed by an evil spirit, but it all seemed so senseless afterwards.

16. M., 25. If I dwell on things, anger grows, so I am usually angriest sometime after the cause, but rarely show it at the time.

17. F., 34. I never had but four outbursts of passion, and these were when 19, 21, 29, and 33. The cause was always injustice to self or friends, and I felt a horrid pain at what caused the anger, and immense relief at giving vent to the storm within. I never felt ashamed but often sorry.

18. F., 28. Anger must have scope or it accumulates with me. Blame rouses it most, next comes interference, although I know that often when this is by friends, it is an expression of interest.

19. Scotch, F., 19. My nasty temper never smoulders, but it is ablaze and over. I feel I must do something or explode, and must either say bitter scathing things or take violent exercise.

20. M., 38. My boy of 11 when angry, screams, speaks fast or in a gruff tone, and likes to break things. His reactions are emphatic and take the form of asking pardon of superiors, and showing excessive kindness to his inferiors. If his anger has free vent, he shows no desire for revenge later.

21. F., 27. My tempers first simmer, then boil, then explode in way that make me shake from head to foot. I am so unsettled for a long time afterwards that I find a walk the best way to work off the effects.

22. F., 26. If I repress rage entirely, from shame or any other cause, it lasts much longer. I brood over it, exaggerate the injustice and find it harder to reason myself into a happy mood of kindness toward the offender.

23. F., 37. I most dread those people, who when angry are pre-

ternaturally cool, precise and impressive. This is really the most terrible kind of passion, for you fear it may break out in anything.

24. Smothered anger that is not allowed to effervesce may become lasting and warp character, so that it is often hard to choose between the much and too little control.

25. F., 21. I do not rage but am irritable, and love to appear indifferent and even cut my acquaintances. Injustice makes the most permanent resentment.

26. My daughter of 12 is saucy, impudent, when she is provoked, but rarely revengeful.

27. F., 28. Grumbling and fault finding is the worst; sometimes trials through the day come out in the form of petulance or fretfulness when children go to bed.

Different Ways in which Individuals regard their own Anger States. The condition of rage is almost always regarded as very distinct from that of normal consciousness. The natural untaught child has at first little sense of moral wrong in this state, but soon connects painful impressions with it in his own experiences, which make for control. The instinct of seclusion, strongest with girls, and the bearing a great deal before giving way, both attest the many fears connected with this state. Threats often imply peculiar dangers if this second personality once becomes ascendant. Boys, who boast how strong they are and the cruel things they might do if mad, as though their anger was a dangerous and concealed weapon; anger, which adds more or less consciously to its intensity by feigning impulses to do unutterable things—all these are often effective in intimidating not only comrades but often parents and teachers. The simulation of anger often so admirable as a pedagogic method, the dramatic assumption of many of the symptoms and expressions of rage, are sometimes very effective in preventing fights, and a due sense among adults in society of the danger to person, property, or reputation of making active enemies and intensifying dislikes, is wholesome and sanitary. To arouse this demon, which may carry away those about us in a frenzy of rapt passion, is a danger that should never be forgotten, for where abandon is complete, the dearest friend, the fondest wife, child or even parent, may suffer an almost complete reversion, and hate, as inverted love, may become the most intense and rancorous of all. A single spasm of anger has sometimes the power in some souls of expelling affection forever beyond the power of pardon or even truce, and perhaps this "old Adam," as a potentiality, exists in every soul and may break through every fetter.

I. F., 30. Righteous wrath makes my moral sense keener, but this, I find, is very wearing to the nerves. To have a strong feeling of "served him right," when a mean thing is done, is almost a part of conscience. During the first stage of venting anger upon an opponent there is a grim satisfaction, but fortunately for the race this soon leads to shame.

2. F., 19. After a mad spell I sometimes feel repentant, often indifferent, and always very glad that my temper helped me to do what I wanted to do but otherwise never should have done.

3. M., 29. I believe in causes of offence; it is better to have the matter out, for a good rage freely vented gives an easement like the "peace which passeth all understanding, which nothing else can give and which is not of this earth." I know people who will not speak to you for a week, when you are quite at a loss for the cause, and prefer hasty tempers to the sulks.

4. M., 30. I plead for more anger in school. There is a point where patience ceases to be a moral or pedagogical virtue, but is mere flabbiness.

5. M., 31. In my experience as a teacher it is often an excellent thing to simulate or pretend anger in dealing with young children. Some faults are better punished with a little heat of anger than in cold blood.

6. F., 29. I prefer to deal with fiery than with sulky people, and am sure that a pretty good temper is desirable if not in excess. It is sometimes well to speak out that we may know and be known, and avoid misunderstandings.

7. F., 22. A strong temper well under control is a great force, and may be used for good. Heaven knows I hope it may prove so in my case.

8. F., 19. I am so often in the wrong that I seldom have a chance for righteous indignation, but I look forward to it some day, for I really like to get into a passion.

9. M., 24. It is certainly a great relief to get in a rage once in a while, but I think it should be done in solitude.

10. F., 21. The excitement is the pleasant part of my temper, and I grumble, fume and scold.

11. F., 20. A girl of prickly, contradictory disposition, balanced by much judgment, if angry never speaks, but acts. Once when 17, and told to replace some trimmings she had scissored into 100 pieces from her hat because she did not like them, she was roused to higher spirits, the deeper the disgrace. Her merriest evenings were when she had been in trouble during the entire day, and so had thrown off all restraints and revelled in the freedom from responsibility of being good. All her moods were afterwards atoned by a storm of tears.

12. Scotch, F., 24. I can generally check temper at an unkind or sarcastic remark and occasionally do not show it at all. Only once within the last ten years do I remember giving entire vent to temper, when I suddenly flew up inwardly and boxed my brother's ears. He looked so astonished that, although I was trembling with rage, I could hardly help laughing. I have found it a not altogether unpleasant sensation to be in a great rage. It wakes me up and makes me feel very much alive. I do remember once more giving way, and I shook my bigger brother till I thought I could hear his teeth chatter. If unwell or busy, I often feel very bitter and cross.

13. F., 19. The satisfaction and relief that used to make the after feeling decidedly pleasant is less now than formerly, for now it often leaves me unsatisfied, which it never did before.

14. Scotch, F., 26. When I am angry, if any one is at hand, I speak with greater heat than I really feel in order to keep up my anger. It is a kind of luxury.

15. F., 28. I used to boast and be very proud of my hot temper. It left me revengeful, sulky and skulking. Now I regret it.

16. F., 22. If deeply offended, I feel dried up toward the person for weeks and months. If I speak to the object of my wrath, my voice sounds strange and abrupt to myself. I once stood for hours in

front of a teacher whose rules I had broken, with occasionally a long-impulse to give way, but something, I suppose false pride, prevented. I felt too strange and excited to be unhappy; the latter came later. Now rage is a sort of intoxication. I am exhilarated with a sort of unnatural happiness.

17. Many boys are as I was, fond of talking of their herculean strength if angered, warning others not to make them mad, lest they be annihilated when their rage is unchained. Such boys, if angry, often look, threaten or feign to attempt the most murderous things for effect, having themselves, however, fairly well in command all the time.

18. "Don't get me mad," said M., 10, "for if I am I can lick K. S. and B. (boys of 16 to 18) and the teacher himself. I hit the old man just once in the nose and made him bleed. He has not licked me since."

19. "When I get mad," said M. 11, "I don't know what I am doing. I might take out my dirk (he only had a small pocket knife) and cut your throat or cut your heart out and eat it, or rip you anywhere like a stuck pig. I should not know what I did till afterwards."

20. "Look out, don't do that, stop, or you will get me mad!" boys often say, speaking of this state as if it were a kind of demoniacal possession in which they were no longer accountable.

21. When I am misjudged, as I often am (for this is the way I put to myself the fact that my sister is far more attractive than I and gets all the attention) I show my temper by pretending to show nonchalance. "I care for nobody if nobody cares for me" is the spirit, although I do care very much indeed. Often I never wished to set matters right, but gloried in being a martyr.

22. M., 28. I act on the impulse and speak straight out what I think, say how maddening it is, give others a piece of my mind, tell them how they should act. If they think I make too much fuss and keep cool themselves, I am all the madder. I always say all that I mean and feel easier for having spoken out, but always regret it later.

23. F., 24. If my temper is upset, I feel disobliging and disagreeable. I never had physical signs of it, and have learned to avoid those I cannot live pleasantly with. When passion rises I have to weep, and must hide lest the cause of my anger should think my tears are those of penitence, instead of righteous indignation.

27. Psychological observations, like charity, are best begun at home, and I have all my life been at home with almost nothing so much as temper, although I never spoke willingly about it before, save once to the clergyman who prepared me for confirmation at the age of 16. My confessions are not complete, but I do not know how to write some things.

Love and Dread of Seeing Conflict in Anger. Both our returns and common experiences show that many, and especially women, have great and sometimes morbid dread of any manifestations of anger as of all other uncontrolled states. In animals, females are often described as watching with complacency the conflict of their rival males for their possession, and it seems probable that the intense horror of this state, which many females report, is associated more or less unconsciously with the sexual rage which has followed it.

The great interest and pleasure in a fight, which boys, men, and sometimes even women manifest, is well attested in the

history of gladiatorial contests, tournaments, the wager of battle, pugilistic encounters, duels, whether by students or according to codes, wrestling and many other popular diversions, the crowd that always gathers to see men, boys or even dogs fight, cock fights and bull fights, etc., are further attested. The spectator's first impulse is to see fair play, and to have the contest prolonged and continued until one or the other of the contestants is subdued, and sometimes the thumbs go down, and even death is postulated. The writer himself confesses in his own experience a quite unparalleled tingling of fibre and a peculiar mental inebriation, he has himself felt in experiences of this kind, which as a psychologist and especially as a student of this subject, he has felt justified in giving himself. The common experiences of life seem dull, there is a zest of heroic achievement, of staking all for the chance of victory, of doing and daring with the greatest energy and risk, and that despite the brutality and the sense of degradation which comes from defying the ban of social condemnation placed upon witnessing such scenes. They give a sense that is to a great degree true, that life is warfare, that the struggle for survival never intermits, is always intense and bitter upon whatever plane life is lived, that offensive and defensive resources must never be out of reach, and that in a sense every one must be either a good fighter or a coward. Compared with the utterly unregulated fights of quite barbaric human beings, all these forms of conflict are more or less refined by rules or by customs, and one moral which familiarity with them impresses is that muscular strength and agility and the power to use fists and other natural weapons, and even some kind of code by which under certain circumstances certain wrongs, which the law cannot reach, can be promptly and summarily dealt with, is a distinct advantage to the ethical nature of man and a real safeguard of the highest civilization.

1. The sight of anger in others causes an awe struck yet interested wonder in the spectator, and every one flocks to see a quarrel. A boy of 11 jigged, danced and leaped up and down on witnessing a quarrel between two girls, although they attempted no physical violence, but simply stared at each other and said bitter things in a low distinct voice. If the quarrel is by older people, spectators on the other hand retire in almost inverse proportion to their sex, age, and strength.

2. F., 26. My brother, 17, once was roused to a frenzy at his brother attacking him brutally and looking awfully. He was taken to his room, and I sat by all night fearing murder, or something else still more dreadful, to follow. The next day he was silent and sullen, but gradually became himself again. This experience I cannot even now think of without shuddering.

Alas for those who consume the power of arrest or control too frequently or too completely. Many are angels or demons just in proportion as they are rested or fatigued. The state called irritability is due to loss of inhibition, and when this is gone man is the victim of whatever morbid impulses may be evoked, and some forms of insanity consist essentially in the loss of this higher power of restraint and the liberation in unchecked violence of lower instincts. Not only anger but mania, acute and active melancholy and suicide are often thus explained. Intensity of impulse, like the power of control, varies through all degrees. Some have perhaps all the wild passions, hysterical impulses, and criminal propensities in great power, but keep them so in leash that their strength and perhaps their very existence is not suspected by their nearest friends till some unusual strain removes the power of repression for a brief interval when they break out with overpowering mastery. To have and to control them, however, in some cases seems to give the tension with which the best work of the world is done. One function of education and civilization is to restrain and tutor the too quick form of response we call temper. It is always a waste of energy which passes from the potential to the kinetic form, so that control is storage of strength for either endurance or for action. The irritable diathesis involves the loss of all sense of proportion as well as perfect dignity, and weakens discipline, and "temper is a weapon we hold by the blade." We can see thus how irritability is often a stage in the recovery from disease. This lower power of reflex is restored before the higher power of control.

Lange's¹ theory of emotions, as is well known, makes vasomotor changes primary, even to those of the neuro-muscular system. Sadness and fear are at root vascular constructions with consequent diminution of voluntary innervation, while joy and anger are vascular dilation with augmented innervation. Joy, sadness, anger, etc., are not mysterious energies causing physical states and changes; but we must drop this psychic hypothesis and say conversely that sadness, *e. g.*, is simply a more or less obscure feeling of the vascular phenomena which accompany it. If these latter could be eliminated, nothing would remain of anger save a memory of its cause. In every emotion there is an initial fact, idea, image or sensation, but the emotion itself is nothing but a sense of those organic changes which precede and condition it. To prove such a theory, as Dumas well says, we must suppress all the visceral and peripheral changes and see if this involves the loss of the emotion;

¹Les Emotions. Paris, 1895.

but this can never be done, and hence the theory is safe from experimental proof or disproof. Perhaps, however, some proportion may be established between emotional intensity and vascular instability. This view is essentially mechanical, basing feeling on physiological reflexes. The view of James¹ is that "bodily changes follow directly the perception of the exciting fact and that our feeling of the same changes as they occur is the emotion." "We are sorry because we cry, angry because we strike, afraid because we tremble, etc." These bodily changes are not merely vascular but are innumerable and are all felt. For the finer as distinct from the coarser emotions, weakened repetition of once useful acts, the Darwinian analogous feeling theory, and that of easiest drainage channels, which are probably not the smaller muscles but by way of the pneumogastric and sympathetic nerves, are the three explanatory principles.

No one adequately informed on the physiological basis of psychic life will for a moment question this general view of the primacy of physical changes and no one who accepts the most cardinal principles of modern epistemology will hesitate to affirm another psychic element and to deny that the physical changes are the feelings. Not only ought these two precepts to be almost platitudes in psychology and have interest only for those still numerous, as the discussion of the Lange-James theory has shown, who hold that the soul is more or less entitive, but the same principles apply to every form of intellection as well, save only that instead of muscle tensions, blood pressures, etc., we must substitute more subtle changes in the highest nerve centers. This, too, is the only fruitful presupposition of modern psychology, vague and general as it must be in the present state of our knowledge. In all thought brain changes must be postulated as preceding in time and as all conditioning. A far better and fuller statement of this principle, so far as the emotions are concerned, has just been made, independently of and in entire ignorance of the Lange-James view, by Sutherland,² who makes an admirable digest of recent biological and psychological researches which seem to point to the conclusion that henceforth we must conceive that the emotions are to the intellect somewhat as the sympathetic nervous system is to the cerebro-spinal.

In general terms, we may say that the brain begins with the vertebrate series, and that the visceral ganglia that preside over nutrition, circulation and perhaps vascular tone, and the

¹ Psychology. Vol. II, pp. 449-450.

² The Origin and Growth of the Moral Instincts. 1898. Vol. II, pp. 210-307. The Nervous Basis of the Emotions.

involuntary and non-striated muscles affecting nutrition, temperature, sex, etc., are the twilight region where the keys to the solution of the psychology of feeling must be sought. Most of the history of life as recorded in the rocks since the amphioxus has been devoted to the development of muscles and to laying the basis of all that they presuppose for the soul; and the suggestion is irresistible that the roots of our emotional life must be traced back to those paleologic ages where prevertebrate life had its fullest development. The feelings, therefore, are indefinitely older than the will, as it is older than the intellect. Mosso and others have lately laid stress on the idea that the physical expressions of the most different emotions are often more or less similar, especially if they are intense. It is no doubt true that strong feelings are so widely irradiated as to affect every part and organ of the body; and although pleasure states are more closely related with expansion and extensor muscles, and pain with ameboid and cellular contractions and in the higher forms with the flexor muscles, it seems improbable that emotions so opposite as anger and love should not be as strongly contrasted in their expression. Probably our emotional psychology has now only advanced to a stage of development more or less corresponding to that stage in general psychology when it was first clearly seen that the brain and not the heart was the general organ of mentation, and perhaps we are now at the dawn of a period of ganglionic psychology.